

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON

UNITED STATES OF AMERICA

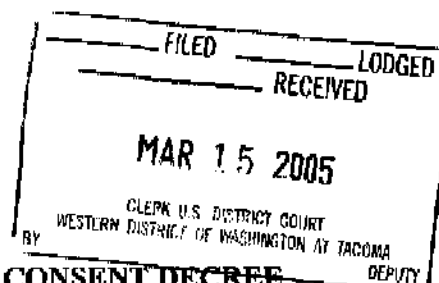
Plaintiff,

v.

PORT OF TACOMA;
OCCIDENTAL CHEMICAL
CORPORATION; MARIANA
PROPERTIES, INC.; AND
PIONEER AMERICAS LLC.

Defendants,

CIVIL ACTION NO. C 05-5103 FDB



RD/RA CONSENT DECREE
MOUTH OF HYLEBOS WATERWAY PROBLEM AREA
COMMENCEMENT BAY NEARSHORE/TIDEFLATS SUPERFUND SITE

05-CV-05103-CNST

1293 1-40

CONSENT DECREE
Commencement Bay Nearshore/Tideflats
Superfund Site
Mouth of the Hylebos Waterway Problem Area

United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

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1 I. BACKGROUND

2 A. The United States of America ("United States"), on behalf of the Administrator of
3 the United States Environmental Protection Agency ("EPA"), filed a complaint in this matter
4 pursuant to Sections 106 and 107 of the Comprehensive Environmental Response,
5 Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9606, 9607.

6
7 B. The United States in its complaint seeks, inter alia: (1) reimbursement of costs
8 incurred by EPA and the Department of Justice for response actions at the Hylebos Waterway
9 Problem Areas ("Hylebos Waterway Problem Area") within the Commencement Bay
10 Nearshore/Tideflats Superfund Site in Tacoma, Washington ("CB/NT Site"), together with
11 accrued interest; and (2) performance of studies and response work by the defendants at the
12 Hylebos Waterway Problem Area consistent with the National Contingency Plan, 40 C.F.R. Part
13 300 (as amended) ("NCP").

14 C. In accordance with the NCP and Section 121(f)(1)(F) of CERCLA, 42 U.S.C.
15 § 9621(f)(1)(F), EPA notified the State of Washington Department of Ecology ("State") on
16 December 26, 2000 of negotiations with potentially responsible parties regarding the
17 implementation of the remedial design and remedial action for the Hylebos Waterway Problem
18 Area, and EPA has provided the State with an opportunity to participate in such negotiations and
19 be a party to this Consent Decree.
20

21 D. In accordance with Section 122(j)(1) of CERCLA, 42 U.S.C. § 9622(j)(1), EPA
22 notified the Washington Department of Ecology, National Oceanic and Atmospheric
23 Administration of the U.S. Department of Commerce, the Fish and Wildlife Service of the U.S.
24 Department of Interior, the Puyallup Tribe of Indians, and the Muckleshoot Indian Tribe, and the

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Bureau of Indian Affairs on December 26, 2000 of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under the trusteeship of the Natural Resource Trustees and encouraged the trustees to participate in the negotiation of this Consent Decree.

E. The defendants that have entered into this Consent Decree ("Settling Defendants") do not admit any liability to the Plaintiff arising out of the transactions or occurrences alleged in the complaint, nor do they acknowledge that the release or threatened release of hazardous substances at or from the CB/NT Site and/or the Occidental Site constitutes an imminent or substantial endangerment to the public health or welfare or the environment.

F. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the CB/NT Site on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 8, 1983, 48 Fed. Reg. 40,658.

G. In response to a release or a substantial threat of a release of hazardous substances at or from the CB/NT Site, EPA entered into a CERCLA Cooperative Agreement with the State of Washington, through the Department of Ecology ("Ecology") to conduct a Remedial Investigation and Feasibility Study ("RI/FS") for the Site pursuant to 40 C.F.R. § 300.430.

H. Ecology completed a Remedial Investigation ("RI") Report on contaminated sediments and sources in the CB/NT Site and the results were published in August 1985. The results of the Feasibility Study ("FS") were published in February, 1989.

I. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the completion of the FS and of the proposed plan for remedial action for the CB/NT Site, on February 24, 1989, in a major local newspaper of general circulation. EPA provided an

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1 opportunity for written and oral comments from the public on the proposed plan for remedial
 2 action. A copy of the transcript of the public meeting is available to the public as part of the
 3 administrative record upon which the Regional Administrator based the selection of the response
 4 action.

5 J. The decision by EPA on the remedial action to be implemented at the CB/NT Site
 6 is embodied in a final Record of Decision ("ROD"), executed on September 30, 1989, on which
 7 the State and Puyallup Tribe of Indians gave their concurrence. The ROD includes EPA's
 8 explanations for any significant differences between the final plan and the proposed plan as well
 9 as a responsiveness summary to the public comments. Notice of the final plan was published in
 10 accordance with Section 117(b) of CERCLA.

11 K. The ROD concluded that the large study area, multiplicity of contaminant
 12 sources, diversity of activities, and complexity of the CB/NT Site, required that response actions
 13 be accomplished in seven (7) operable units managed primarily by EPA and Ecology, including
 14 (1) Operable Unit 01 - CB/NT Sediments; (2) Operable Unit 02 - Asarco Tacoma Smelter; (3)
 15 Operable Unit 03 - Tacoma Tar Pits; (4) Operable Unit 04 - Asarco Off-Property; (5) Operable
 16 Unit 05 - CB/NT Sources; (6) Operable Unit 06 - Asarco Sediments; and (7) Operable Unit 07 -
 17 Asarco demolition. EPA identified several "Problem Areas" in the ROD for further study and
 18 evaluation. EPA identified two Problem Areas within the Hylebos Waterway. These are called
 19 the Head of the Hylebos Waterway Problem Area and the Mouth of the Hylebos Waterway
 20 Problem Area. This Consent Decree addresses Operable Unit 01 (sediments) within the portion
 21 of the Hylebos Waterway known as the Mouth of the Hylebos Problem Area.

22 L. The ROD addresses both sediment remediation (Operable Unit 01) and source
 23 control (Operable Unit 05). EPA has entered into Superfund Cooperative Agreements with the

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1 State and the Puyallup Tribe of Indians for remedial activities at the CB/NT Site. A support
 2 agency Cooperative Agreement was entered into with the Puyallup Tribe. Under a Cooperative
 3 Agreement with Ecology, effective May 1, 1989, and in the ROD for the CB/NT Site, EPA is
 4 designated as the lead agency for remediation of contaminated sediments in the waterways and
 5 Commencement Bay, and Ecology is the lead agency for source control of hazardous substances
 6 from upland areas (down to the mean high tidal elevation of the waterways). EPA and Ecology
 7 closely coordinate response activities pertinent to Operable Unit 01 (CB/NT Sediments) and
 8 Operable Unit 05 (Source Control) to ensure successful implementation of the overall remedy for
 9 the Mouth of the Hylebos Site and adjacent areas. EPA and Ecology closely coordinated with
 10 each other regarding the Work required under this Consent Decree.

11 M. As described in the RI/FS for the CB/NT Site, there are nine Problem Areas of
 12 contaminated sediments and numerous sources of hazardous substances contamination. The
 13 ROD addressed eight of the nine Problem Areas, including the Mouth of the Hylebos and the
 14 Head of the Hylebos Problem Areas. The ninth Problem Area, the Asarco Sediments, is now a
 15 separate operable unit of the CB/NT Site and is the subject of a separate ROD. This Consent
 16 Decree addresses remediation of the Mouth of the Hylebos Site.

17
 18 N. On November 29, 1993, six entities (collectively known as the Hylebos Cleanup
 19 Committee or "HCC") entered into an Administrative Order on Consent ("HCC AOC") with
 20 EPA for the preparation of, performance of, and reimbursement of oversight costs for Pre-
 21 remedial Design Activities for the Hylebos Waterway Problem Areas. The objectives of the
 22 HCC AOC were: (1) to perform pre-remedial design work for the Hylebos Waterway consistent
 23 with the ROD; (2) to perform analyses and studies needed by EPA to select a Remediation Plan,
 24 including an acceptable confined disposal site and any necessary mitigation, which attains

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1 Sediment Quality Objectives identified in the ROD, and all applicable or relevant and
 2 appropriate requirements; and (3) to provide for recovery by EPA of its response and oversight
 3 costs incurred with respect to the implementation of the HCC AOC. By letter dated November
 4 8, 2001, EPA confirmed that all activities required by the original Scope of Work to the HCC
 5 AOC were performed, except remaining oversight billings, in accordance with Section XXVI of
 6 the HCC AOC. A second amendment to the HCC AOC replaced the six original Respondents
 7 with only ATOFINA Chemicals, Inc. and General Metals of Tacoma, Inc. and amended the
 8 Scope of Work to be comprised of a Pilot Project to be conducted in the winter of 2001 and
 9 2002. With the exception of cost reimbursement and record keeping activities, the Settling
 10 Defendants who were parties to the HCC AOC have performed all activities required by the
 11 HCC AOC.

12 O. In November of 1997, Settling Defendant Occidental Chemical Corporation,
 13 through its then-existing subsidiary OCC Tacoma, Inc., entered into an Administrative Order on
 14 Consent (the "Occidental AOC") with EPA for removal activities pertinent to a shoreline
 15 embankment area in the Mouth of the Hylebos Waterway Site located at 605 Alexander Avenue
 16 in Tacoma (and at certain adjoining property located at 709 Alexander Avenue)(the "Occidental
 17 Embankment Area") and to the portion of the Mouth of Hylebos Waterway Site known as "Area
 18 5106 Sediment" due to its numerical sampling designation ("Area 5106 Sediment," as defined in
 19 the Occidental AOC). The Occidental AOC addressed the Occidental Embankment Area and
 20 Area 5106 Sediment separately from the HCC AOC. Effective June 30, 2001, OCC Tacoma,
 21 Inc. was merged into its parent and sole shareholder, Settling Defendant Occidental Chemical
 22 Corporation, and Occidental Chemical Corporation assumed performance of all activities
 23 required by the Occidental AOC after the merger.
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1 P. Settling Defendants, Occidental Chemical Corporation, Pioneer Americas LLC,
 2 Mariana Properties, Inc., and the Port of Tacoma own, owned, control, or controlled property
 3 within the Hylebos Waterway Problem Area and adjacent to the Hylebos Waterway Problem
 4 Area which requires remedial action under the CB/NT ROD.

5 Q. On July 28, 1997, EPA issued an Explanation of Significant Difference (ESD) for
 6 the CB/NT Site, in compliance with Section 117(c) of CERCLA, that explains differences in the
 7 Remedial Action that significantly change, but do not fundamentally alter, the remedy selected
 8 in the ROD. The 1997 ESD modified the cleanup level for remediation of marine sediments
 9 contaminated with polychlorinated biphenyls (PCBs) at the CB/NT Site.

10 R. On August 3, 2000, EPA issued an ESD, in compliance with Section 117(c) of
 11 CERCLA, that explains differences in the Remedial Action that significantly change, but do not
 12 fundamentally alter, the remedy selected in the ROD. The ESD was a comprehensive document
 13 addressing cleanup plans for two waterways within the CB/NT Site, selecting disposal sites for
 14 all contaminated sediment yet to be dredged and confined from the CB/NT Site, as well as
 15 providing performance standards and documenting other differences to the ROD. Based on the
 16 studies and analysis conducted under the HCC AOC with respect to the Hylebos Waterway
 17 Problem Area, the ESD provides details of: the areal extent of sediment contamination in the
 18 Hylebos Waterway Problem Area and the volume of sediment that requires remediation;
 19 designation of areas that are projected to naturally recover within ten (10) years of remedial
 20 action if not actively remediated; EPA's decision to dispose of contaminated sediments in Blair
 21 Slip 1, St. Paul Waterway, and an upland regional landfill; performance standards for mitigation
 22 for the Remedial Action; and the then estimated cost of the Remedial Action at the Hylebos
 23 Waterway Problem Area. Notice and public comment were taken on the ESD and notice of the
 24

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1 final ESD was published in accordance with Section 117(c) of CERCLA. The State and the
2 Puyallup Tribe concurred on the ESD.

3 S. Since 1999, certain of the Settling Defendants have performed various response
4 activities (including sampling, characterization, evaluation, planning and design) pertinent to the
5 Mouth of the Hylebos Site. Such activities are described in the Statement of Work attached as
6 Appendix A, and are components of the Work required under this Consent Decree.

7
8 T. In order to maintain the cleanup schedule, among other reasons, on March 25,
9 2002, EPA issued a Unilateral Administrative Order for Remedial Design and Remedial Action
10 to the Settling Defendants Port of Tacoma and Occidental Chemical Corporation (EPA Docket
11 No. CERCLA 10-2002-0064)(the "Mouth UAO") and a Unilateral Administrative Order to
12 Settling Defendant Occidental Chemical Corporation (EPA Docket No. 10-2002-0066)(the
13 "Occidental UAO"). The Parties anticipated replacing each UAO with a consent decree. All
14 obligations of those Settling Defendants under the Mouth UAO are incorporated into and
15 enforceable under the terms of this Consent Decree. The Mouth UAO shall terminate upon entry
16 of this Consent Decree. The Occidental UAO is being addressed under the Occidental AOC.

17 U. This Consent Decree addresses remedial design and remedial action for the
18 Mouth of the Hylebos Waterway Problem Area, including but not limited to: construction of a
19 nearshore confined disposal slip at Slip 1 of the Blair Waterway; the filling of that nearshore
20 confined disposal facility with dredged sediment from the Mouth of the Hylebos Waterway
21 Problem Area and other locations; and implementation and long term operation, maintenance
22 and monitoring of such remedial actions. The Settling Defendants have requested that EPA
23 approve closure of Blair Slip 1 during the 2004 construction season and acknowledge that after
24 its closure, Blair Slip 1 will no longer be used for disposal of Waste Materials removed from

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1 areas within the CB/NT Site, including the Occidental Site. Settling Defendants performing
 2 cleanup actions at the Occidental Site agree that they will fully evaluate remedial alternatives,
 3 including the removal and disposal off-site or on-site disposal of Waste Material located within
 4 the Occidental Site, as established pursuant to the Occidental AOC as amended.

5
 6 V. On September 15, 2003, the United States District Court for the Western District
 7 of Washington entered the Cash-Out Consent Decree whereby twenty-six parties and five
 8 departments, agencies and instrumentalities of the United States became obligated to make
 9 certain payments to the Hylebos Waterway Problem Area Escrow Account to be used to pay for
 10 portions of the remedial design and remedial action for the Hylebos Waterway Site. This
 11 Consent Decree provides for distribution(s) of portions of escrow account funds to the Mouth of
 12 the Hylebos Cleanup Account pursuant to the terms of the Cash-Out Consent Decree and its
 13 Appendix D (Escrow Agreement) to pay for portions of the remedial design and remedial action
 14 for the Mouth of the Hylebos Waterway Site.

15 W. Remedial design and remedial action for other areas of the Hylebos Waterway
 16 Problem Area not addressed by this Consent Decree, referred to as the Head of the Hylebos
 17 Waterway Problem Area and the Occidental Site, are being performed under separate consent
 18 decrees or orders.

19 X. Based on the information presently available to EPA, EPA believes that the Work
 20 will be properly and promptly conducted by the Settling Defendants if conducted in accordance
 21 with the requirements of this Consent Decree and its appendices.
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1 real or personal property, shall in no way alter such Settling Defendant's responsibilities under
2 this Consent Decree.

3 3. Settling Defendants either directly or through the Supervising Contractor shall
4 provide a copy of this Consent Decree to each contractor hired to perform the Work (as defined
5 below) required by this Consent Decree and to each person representing any Settling Defendant
6 with respect to the Mouth of the Hylebos Site or the Work and shall condition all contracts
7 entered into hereunder upon performance of the Work in conformity with the terms of this
8 Consent Decree. Settling Defendants or their contractors shall provide written notice of the
9 Consent Decree to all subcontractors hired to perform any portion of the Work required by this
10 Consent Decree. Settling Defendants shall nonetheless be responsible for ensuring that their
11 contractors and subcontractors perform the Work contemplated herein in accordance with this
12 Consent Decree. With regard to the activities undertaken pursuant to this Consent Decree, each
13 contractor and subcontractor shall be deemed to be in a contractual relationship with the Settling
14 Defendants within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3).
15

16 IV. DEFINITIONS

17 4. Unless otherwise expressly provided herein, terms used in this Consent Decree
18 that are defined in CERCLA or in regulations promulgated under CERCLA shall have the
19 meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are
20 used in this Consent Decree or in the appendices attached hereto and incorporated hereunder, the
21 following definitions shall apply:
22

23 "Cash-Out Consent Decree" shall mean the Consent Decree in United States v. Mary
24 Anderson et al., Civil Action No. C03-5107 (W.D. WA 2003).

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1 “CB/NT Site” shall mean the Commencement Bay Nearshore/Tideflats Superfund Site,
 2 encompassing approximately 10-12 square miles of shorelines, intertidal areas, bottom
 3 sediments, water, and adjacent lands located in Tacoma, Washington. The upland boundaries of
 4 the CB/NT Site are defined according to the contours of localized drainage basins that flow into
 5 the marine waters. The marine boundary of the CB/NT Site is limited to the shoreline, intertidal
 6 areas, bottom sediments, and water of depths less than 60 feet below mean lower low water. The
 7 nearshore portion of the CB/NT Site is defined as the area along the Ruston shoreline from the
 8 Mouth of City Waterway to Point Defiance. The tideflats portion of the CB/NT Site includes the
 9 Hylebos, Blair, Sitcum, Milwaukee, St. Paul, Middle, Wheeler-Osgood, and Thea Foss
 10 waterways; the Puyallup River upstream to the Interstate 5 bridge; and the adjacent land areas.
 11 The CB/NT Site encompasses the Hylebos Waterway Problem Area (containing the
 12 Mouth/Middle and Head of Hylebos Waterway Problem Areas).

13 “CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and
 14 Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 *et seq.*

15 “Consent Decree” shall mean this Consent Decree and all appendices attached hereto
 16 (listed in Section XXIX) as they may be amended in accordance with this Consent Decree. In
 17 the event of conflict between this Consent Decree and any appendix, this Decree shall control.
 18

19 “Day” shall mean a calendar day unless expressly stated to be a working day. “Working
 20 day” shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any
 21 period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday,
 22 or Federal holiday, the period shall run until the close of business of the next working day.
 23

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1 "Effective Date" shall be the effective date of this Consent Decree as provided in
2 Paragraph 104.

3 "EPA" shall mean the United States Environmental Protection Agency and any successor
4 departments or agencies of the United States.

5 "Ecology" shall mean the Washington State Department of Ecology and any successor
6 departments or agencies of the State.

7 "Future Oversight Costs" shall mean that portion of Future Response Costs that EPA
8 incurs in monitoring and supervising Settling Defendants' performance of the Work to determine
9 whether such performance is consistent with the requirements of this Consent Decree, including
10 costs incurred in reviewing plans, reports and other documents submitted pursuant to this
11 Consent Decree, as well as, all costs incurred in overseeing implementation of the Unilateral
12 Administrative Order for Remedial Design and Remedial Action (EPA Docket No. CERCLA
13 10-2002-0064) that EPA issued to the Port of Tacoma, Occidental Chemical Corporation and
14 OCC Tacoma, Inc., on March 25, 2002, and costs incurred in overseeing implementation of the
15 Work in this Consent Decree; however, Future Oversight Costs do not include, *inter alia*: the
16 costs incurred in overseeing implementation of Unilateral Administrative Order for Remedial
17 Design and Remedial Action (EPA Docket No. CERCLA 10-2002-0065) that EPA issued to
18 Atofina Chemicals, Inc., and General Metals of Tacoma, Inc., on March 25, 2002, the costs
19 incurred in overseeing implementation of Unilateral Administrative Order for Removal
20 Activities (EPA Docket No. CERCLA 10-2002-0066) that EPA issued to the Occidental
21 Chemical Corporation and OCC Tacoma, Inc., on March 25, 2002, the costs incurred by the
22 United States pursuant to Sections VII (Remedy Review), IX (Access and Institutional Controls),
23 XV (Emergency Response), and Paragraph 87 of Section XXI (Work Takeover), or the costs
24

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1 incurred by the United States in enforcing the terms of this Consent Decree, including all costs
 2 incurred in connection with Dispute Resolution pursuant to Section XIX (Dispute Resolution)
 3 and all litigation costs.

4 "Future Response Costs" shall mean all costs, including, but not limited to, direct and
 5 indirect costs, that the United States incurs in reviewing or developing plans, reports and other
 6 items directly related to or associated with the Mouth of the Hylebos Problem Area pursuant to
 7 this Consent Decree, verifying the Work, or otherwise implementing, overseeing, or enforcing
 8 this Consent Decree, including, but not limited to, payroll costs, contractor costs, travel costs,
 9 laboratory costs, the costs incurred pursuant to Sections VII, IX (including, but not limited to,
 10 the cost of attorney time and any monies paid to secure access and/or to secure or implement
 11 institutional controls including, but not limited to, the amount of just compensation), XV, and
 12 Paragraph 87 of Section XXI. Future Response Costs shall also include all costs incurred in
 13 overseeing implementation of the Unilateral Administrative Order for Remedial Design and
 14 Remedial Action (EPA Docket No. CERCLA 10-2002-0064) that EPA issued to the Port of
 15 Tacoma, Occidental Chemical Corporation and OCC Tacoma, Inc., on March 25, 2002, and shall
 16 include costs incurred for bay-wide CB/NT Site work, but only if such costs are directly related
 17 to or are attributed to the Mouth of the Hylebos Problem Area. Future Response Costs shall not
 18 include costs incurred that relate to or are associated with the Head of the Hylebos Problem
 19 Area, including the costs incurred in overseeing implementation of Unilateral Administrative
 20 Order for Remedial Design and Remedial Action (EPA Docket No. CERCLA 10-2002-0065)
 21 that EPA has incurred since EPA issued that Unilateral Administrative Order to Atofina
 22 Chemicals, Inc. and General Metal of Tacoma, Inc., on March 25, 2002, the costs incurred in
 23 overseeing implementation of Unilateral Administrative Order for Removal Activities (EPA
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Docket No. CERCLA 10-2002-0066) that EPA issued to the Occidental Chemical Corporation and OCC Tacoma, Inc., on March 25, 2002, or any costs associated with any fish tissue studies that are conducted by EPA for long-term monitoring at the Hylebos Waterway Problem Area, or costs incurred after Certification of the Remedial Action pursuant to Paragraph 47.b of this Consent Decree that are incurred solely as a result of any future release or threat of release of a hazardous substance, pollutant or contaminant at or in the Mouth of the Hylebos Waterway Problem Area by any party other than the Settling Defendants and the Settling Defendants are not otherwise potentially liable for such costs pursuant to CERCLA Section 107. The Settling Defendants shall have the burden of establishing that such costs are not Future Response Costs.

"HCC AOC" shall mean the November 1993, Administrative Order on Consent for Pre-Remedial Design Study, as amended, between EPA and six entities, including Settling Defendants Port of Tacoma and Occidental Chemical Corporation, EPA Docket No. 1093-07-03-104/122.

"Head of the Hylebos Waterway Problem Area" or "Head of Hylebos Site" shall mean Segments 1 and 2 as designated in the Pre-Remedial Design Report submitted under the HCC AOC, as reflected in figures contained in the August 2000 ESD, excluding Sediment Management Areas 103 and 123.

"Hylebos Waterway Problem Area Escrow Account" shall mean the escrow account created pursuant to Appendix D of the consent decree in United States v. Mary Anderson, et al., Civil Action No C03-5107 (W.D. WA 2003).

"Hylebos Waterway Problem Areas Special Account" shall mean the special account established by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. §9622(b)(3), and

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created by the Consent Decree entered in U.S. v. Bay Chemical Company, et al, C99-5521 (RJB), by the U.S. District Court for the Western District of Washington on June 23, 2000.

"Hylebos Waterway Problem Area" shall mean the entire Hylebos Waterway, including but not limited to the Mouth of Hylebos Waterway Problem Area, the Head of Hylebos Waterway Problem Area, and all other areas of the Hylebos Waterway, except for the Occidental Site, that extends from minus 60 foot depth line in the bay to the mouth of the Hylebos Creek. The Hylebos Waterway is within the Commencement Bay Nearshore/Tideflats Superfund Site, encompassing approximately 285 acres, in the northern-most Waterway in Commencement Bay that is bordered by Taylor Way to the south and Marine View Drive to the north in Tacoma, Pierce County, Washington and depicted generally on the map attached as Appendix B.

"Interest," shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

"Mouth of the Hylebos Cleanup Account" shall mean the account established by the Port of Tacoma and Occidental Chemical Corporation for the purpose of paying for the work associated with the Mouth of the Hylebos Problem Area.

"Mouth of the Hylebos Waterway Site" or "Mouth of the Hylebos Problem Area" shall mean segments 3, 4, and 5 of the Hylebos Waterway Problem Area, as designated in the Pre-Remedial Design Evaluation Report submitted under the HCC AOC, as reflected in figures contained in the August 2000 ESD, portions of Segment 1 designated as Sediment Management

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1 Areas 103 and 123 in such Pre-Remedial Design Evaluation Report and the August 2000 ESD,
 2 and the areal extent of contamination in such areas and those areas necessary to stage or
 3 implement Work related to this Consent Decree. The Mouth of the Hylebos Problem Area shall
 4 also include Blair Slip 1 and the area immediately adjacent to Blair Slip 1. The Mouth of the
 5 Hylebos Problem Area does not include the Occidental Site. Attached to this Consent Decree as
 6 Appendix C is a map that depicts the Mouth of the Hylebos Waterway Problem Area.

7
 8 "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous
 9 Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42
 10 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

11 "NCD Site" shall mean the nearshore confined disposal site located at Slip 1 in the Blair
 12 Waterway, into which contaminated sediment shall be deposited and contained for disposal in
 13 accordance with this Consent Decree and the Statement of Work. The NCD Site is a part of the
 14 Mouth of the Hylebos Problem Area. A description of the NCD Site and a map showing its
 15 location is attached as Appendix C to this Consent Decree.

16
 17 "Occidental AOC" shall mean the November 1997, Administrative Order on Consent, as
 18 amended, between EPA and OCC Tacoma, Inc. (a then-existing subsidiary of Occidental
 19 Chemical Corporation), EPA Docket No. 10-97-0011-CERCLA.

20 "Occidental Site" shall mean that portion of segment 5 of the Mouth of the Hylebos
 21 Waterway Problem Area and those portions of the upland properties described in the next
 22 sentence where Waste Material has or may come to be located as a result of releases or
 23 threatened releases of Waste Material from operations related to the production, processing,
 24 formulation or disposal of chemical materials or products. Accordingly, the Occidental Site

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1 shall include, but not be limited to the following: Area 5106; the Occidental Embankment Area;
 2 the Pioneer Property located at 605 Alexander Avenue; locations of groundwater contaminant
 3 plumes and contaminated sediments on the Port of Tacoma property located 401 Alexander
 4 Avenue to the north of the Pioneer Property; locations of groundwater contaminant plumes and
 5 contaminated sediments on the Mariana Properties property located at 709 Alexander Avenue
 6 and the Port of Tacoma property located at 721 Alexander Avenue to the south of the Pioneer
 7 Property; and other areas of Segment 5 of the Mouth of the Hylebos Waterway Problem Area
 8 where releases of Waste Material from such properties have come to be located. The Occidental
 9 Site does not include the release of total petroleum hydrocarbon, BTEX or other constituents of
 10 concern from petroleum product storage operations currently or historically located on the 709
 11 Alexander Avenue property or 721 Alexander Avenue property which has been identified in
 12 shallow groundwater underlying the 709 Alexander Avenue property or the 721 Alexander
 13 Avenue property and determined to be moving towards the Blair Waterway. Appendix C of this
 14 Consent Decree is a map that depicts the Occidental Site.

15 "Operation, Maintenance & Monitoring" or "O, M & M" shall mean all activities
 16 required to maintain the effectiveness of the Remedial Action as required under the Operation,
 17 Maintenance and Monitoring Plan approved or developed by EPA pursuant to this Consent
 18 Decree and the SOW.

19
 20 "Paragraph" shall mean a portion of this Consent Decree identified by an arabic numeral
 21 or an upper case letter.

22 "Parties" shall mean the United States and the Settling Defendants.
 23
 24

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1 “Performance Standards” shall mean the cleanup standards, standards of control, and
 2 other substantive requirements, criteria or limitations, including Sediment Quality Objectives,
 3 construction and post-construction standards, and habitat standards, set forth in the ROD, the
 4 1997 ESD, the August 2000 ESD, and the SOW, and approved plans, deliverables, or reports
 5 required by the SOW.

6 “Plaintiff” shall mean the United States.

7
 8 “RCRA” shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901 et
 9 seq. (also known as the Resource Conservation and Recovery Act).

10 “Record of Decision” or “ROD” shall mean the EPA Record of Decision relating to the
 11 CB/NT Site signed on September 30, 1989, by the Regional Administrator, EPA Region 10, all
 12 attachments thereto and incorporating all significant differences thereto documented in the ESD
 13 issued on July 28, 1997 and the ESD issued on August 3, 2000. The 1997 ESD or the 2000 ESD
 14 may be referred to or discussed individually or separately from the 1989 ROD in this Consent
 15 Decree where appropriate.
 16

17 “Remedial Action” shall mean those activities, except for Operation, Maintenance, and
 18 Monitoring, that have been and are to be undertaken by the Settling Defendants to implement the
 19 ROD, in accordance with the SOW and plans, deliverables, or reports approved by EPA and
 20 required by the SOW. Remedial Action shall include monitoring of areas within the Mouth of
 21 the Hylebos Problem Area identified in the SOW as natural recovery areas and, if necessary and
 22 as determined by EPA, additional remedial action that may be required on such natural recovery
 23 areas.
 24

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1 "Remedial Action Work Plans" shall mean the documents developed pursuant to this
2 Consent Decree and SOW and approved by EPA, and any amendments thereto.

3 "Remedial Design" shall mean those activities that have been and are to be undertaken by
4 the Settling Defendants to develop the final plans and specifications for the Remedial Action
5 developed in accordance with the SOW.
6

7 "Section" shall mean a portion of this Consent Decree identified by a roman numeral.

8 "Settling Defendants" shall mean the Port of Tacoma, Occidental Chemical Corporation,
9 Pioneer Americas LLC, and Mariana Properties, Inc.
10

11 "State" shall mean the State of Washington.

12 "Statement of Work" or "SOW" shall mean the statement of work attached to this
13 Consent Decree as Appendix A for implementation of the Remedial Design, Remedial Action,
14 and Operation, Maintenance and Monitoring at the Mouth of the Hylebos Problem Area, as
15 depicted in Appendix C to this Consent Decree and any modifications made in accordance with
16 this Consent Decree. The SOW shall include all work plans, schedules, and other tasks
17 described and required in the SOW to be approved by EPA.
18

19 "Supervising Contractor" shall mean the individuals retained by Settling Defendants and
20 identified in Paragraph 10 of this Consent Decree to supervise and direct the implementation of
21 the Work under this Consent Decree.
22
23
24

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19

1 "United States" shall mean the United States of America, including all of its departments,
2 agencies, and instrumentalities, which includes without limitation EPA and any federal natural
3 resources trustee.

4 "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of
5 CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33), 42
6 U.S.C. § 9601(33); (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C.
7 § 6903(27); and (4) any "hazardous substance" under the Washington's Model Toxics Control
8 Act, Washington RCW 70.105D.

9
10 "Work" shall mean all activities Settling Defendants are required to perform under this
11 Consent Decree, and in the SOW, except those required by Section XXV (Retention of Records).

12 V. GENERAL PROVISIONS

13
14 5. Objectives of the Parties. The objectives of the Parties in entering into this
15 Consent Decree are to protect public health, welfare and the environment at the Hylebos
16 Waterway Problem Area by the design and implementation of response actions at the Mouth of
17 the Hylebos Problem Area by the Settling Defendants, to reimburse certain response costs of the
18 Plaintiff, to resolve the claims of the Plaintiff which have been asserted against Settling
19 Defendants, and to resolve certain of the claims of Settling Defendants which have been or could
20 have been asserted against the United States with regard to the Hylebos Waterway Problem
21 Area, except as provided in Paragraph 90 of Section XXII (Covenants of Settling Defendants),
22 and to provide Settling Defendants with protection from contribution actions or claims asserted
23 against Settling Defendants as provided in this Consent Decree.

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1 6. Commitments by Settling Defendants

2 a. Settling Defendants shall finance and perform the Work in accordance
3 with this Consent Decree, the ROD, the Mouth of Hylebos SOW, and all work plans and other
4 plans, standards, specifications, and schedules set forth herein or developed by Settling
5 Defendants and approved by EPA pursuant to this Consent Decree. Settling Defendants shall
6 also reimburse the United States for Future Response Costs as provided in this Consent Decree.
7 This Consent Decree supersedes the Mouth UAO. All activities previously required by the
8 Mouth UAO, including reimbursement of response costs, are incorporated into and enforceable
9 under this Consent Decree. Upon entry of this Consent Decree, the Mouth UAO shall be
10 terminated and be of no further force and effect.

11
12 b. The obligations of Settling Defendants to finance and perform the Work
13 and to pay amounts owed the United States under this Consent Decree are joint and several. In
14 the event of the insolvency or other failure of one of the Settling Defendants to implement the
15 requirements of this Consent Decree, the remaining Settling Defendants shall complete all such
16 requirements.

17 7. Compliance With Applicable Law. All activities undertaken by Settling
18 Defendants pursuant to this Consent Decree shall be performed in accordance with the
19 requirements of all applicable federal and state laws and regulations. Settling Defendants must
20 also comply with all applicable or relevant and appropriate requirements of all federal and state
21 environmental laws as set forth in the ROD and the SOW. The activities conducted pursuant to
22 this Consent Decree, if approved by EPA, are consistent with the NCP.

23
24 8. Permits

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1 a. As provided in Section 121(e) of CERCLA and Section 300.400(e) of the
2 NCP, no permit shall be required for any portion of the Work conducted entirely on-site (i.e.,
3 within the areal extent of contamination within the CB/NT Site or in very close proximity to the
4 contamination and necessary for implementation of the Work). Where any portion of the Work
5 that is not on-site requires a federal or state permit or approval, Settling Defendants shall submit
6 timely and complete applications and take all other actions necessary to obtain all such permits
7 or approvals.

8 b. The Settling Defendants may seek relief under the provisions of Section
9 XVIII (Force Majeure) of this Consent Decree for any delay in the performance of the Work
10 resulting from a failure to obtain, or a delay in obtaining, any permit required for the Work.
11

12 c. This Consent Decree is not, and shall not be construed to be, a permit
13 issued pursuant to any federal or state statute or regulation.

14 9. Notice to Successors-in-Title.
15

16 a. With respect to any property owned or controlled by the Settling
17 Defendants that is located within the Hylebos Waterway Problem Area, within 15 days after the
18 entry of this Consent Decree, the Settling Defendants shall submit to EPA for review and
19 approval a notice to be filed with the Recorder's Office or Registry of Deeds or other appropriate
20 office, Pierce County, State of Washington, which shall provide notice to all successors-in-title
21 that the property is part of the Hylebos Waterway Problem Area, that EPA selected a remedy for
22 the CB/NT Site on September 30, 1989, and that potentially responsible parties have entered into
23 a Consent Decree requiring implementation of the remedy in the Hylebos Waterway Problem
24 Area. Such notices shall identify the United States District Court in which the Consent Decree

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1 was filed, the name and civil action number of this case, and the date the Consent Decree was
 2 entered by the Court. The Settling Defendants shall record the notices within ten (10) days of
 3 EPA's approval of the notices. The Settling Defendants shall provide EPA with a certified copy
 4 of the recorded notices within 10 days of recording such notices.

5
 6 b. At least thirty (30) days prior to the conveyance of any interest in property
 7 located within the Mouth of the Hylebos Waterway Problem Area including, but not limited to,
 8 fee interests, and leasehold interests, the Settling Defendants conveying the interest shall give
 9 the grantee written notice of (i) this Consent Decree, and (ii) any recorded restrictive covenant
 10 authorized by Wash. RCW 70.105D.030(1)(f) and (g), and more specifically described in
 11 Washington Administrative Code (WAC) 173-340-440 that places use restrictions on and
 12 concerning the real property as more fully described in Section IX of this Consent Decree. At
 13 least thirty (30) days prior to such conveyance, the Settling Defendants conveying the interest
 14 shall also give written notice to EPA and the State of the proposed conveyance, including the
 15 name and address of the grantee, and the date on which notice of the Consent Decree, access
 16 easements, and/or restrictive easements or covenants was given to the grantee.

17 c. In the event of any such conveyance, the Settling Defendants' obligations
 18 under this Consent Decree, including, but not limited to, its obligation to perform the Work
 19 under Section VI of this Consent Decree and the SOW, provide or secure access and institutional
 20 controls, as well as to abide by such institutional controls, pursuant to Section IX (Access and
 21 Institutional Controls) of this Consent Decree, shall continue to be met by the Settling
 22 Defendant(s). In no event shall the conveyance release or otherwise affect the liability of the
 23 Settling Defendants to comply with all provisions of this Consent Decree, absent the prior
 24

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1 written consent of EPA. If the United States approves, the grantee may perform some or all of
2 the Work under this Consent Decree.

3 d. The notice obligations under this section shall terminate upon certification
4 of completion of the Work, in accordance with Section XIV (Certification of Completion) of the
5 Consent Decree, except to the extent that the property is subject to ongoing institutional controls
6 pursuant to Section IX (Access and Institutional Controls) of this Consent Decree.
7

8 VI. PERFORMANCE OF THE WORK BY SETTLING DEFENDANTS

9 10. Selection of Supervising Contractor.

11 a. All aspects of the Work to be performed by Settling Defendants pursuant
12 to Sections VI (Performance of the Work by Settling Defendants), VII (Remedy Review), VIII
13 (Quality Assurance, Sampling and Data Analysis), and XV (Emergency Response) of this
14 Consent Decree shall be under the direction and supervision of the Supervising Contractors,
15 Suzanne Dudziak and Allen Meek, who have not been disapproved by EPA. If at any time,
16 Settling Defendants propose to change its Supervising Contractor, Settling Defendants shall
17 notify EPA in writing of the name, title, and qualifications of any contractor proposed to be the
18 Supervising Contractor and must obtain an authorization to proceed from EPA before the new
19 Supervising Contractor performs, directs, or supervises any Work under this Consent Decree.
20 The selection of a new Supervising Contractor shall be subject to disapproval by EPA. An EPA
21 decision to disapprove a Supervising Contractor shall be subject to the dispute resolution
22 proceedings of Paragraph 67 (record review) of this Consent Decree. With respect to any
23 contractor proposed to be Supervising Contractor, Settling Defendants shall demonstrate that the
24

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1 contractor has a quality system that complies the requirements of the SOW. The Supervising
 2 Contractors mentioned above, have made the required demonstration.

3
 4 b. If EPA disapproves a proposed Supervising Contractor, EPA will notify
 5 *Settling Defendants* in writing. *Settling Defendants* shall submit to EPA a list of additional
 6 contractors, including the qualifications of each contractor, that would be acceptable to them
 7 within 30 days of receipt of EPA's disapproval of the contractor previously proposed. EPA will
 8 provide written notice of the names of any contractor(s) that it disapproves and an authorization
 9 to proceed with respect to any of the other contractors. *Settling Defendants* may select any
 10 contractor from that list that is not disapproved and shall notify EPA of the name of the
 11 contractor selected within 21 days of EPA's authorization to proceed.

12 c. If EPA fails to provide written notice of its authorization to proceed or
 13 disapproval as provided in this Paragraph and if this failure prevents the *Settling Defendants*
 14 from meeting one or more deadlines in a plan approved by the EPA pursuant to this Consent
 15 Decree, *Settling Defendants* may seek relief under the provisions of Section XVIII (Force
 16 Majeure).

17
 18 11. Remedial Design and Remedial Action.

19 a. *Settling Defendants* shall perform the Remedial Design and Remedial
 20 Action activities as described in the SOW and in accordance with the schedule set forth in the
 21 SOW. The SOW is attached to this Consent Decree as Appendix A and by this reference is
 22 incorporated into this Consent Decree. The schedules and deliverables (work plans, reports, and
 23 other documents) set forth in the SOW have been or shall be submitted to EPA for review and
 24

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1 approval pursuant to Section XI (EPA Approval of Plans and Other Submissions) and once
2 approved by EPA shall be enforceable under the terms of this Consent Decree.

3 b. The Settling Defendants shall continue to implement Remedial Action
4 until certification of completion of Remedial Action in accordance with Section XIV
5 (Certification of Completion) of this Consent Decree. The Settling Defendants shall continue to
6 implement the Work until certification of completion of the Work in accordance with Section
7 XIV (Certification of Completion) of this Consent Decree.

8
9 12. Modification of the SOW or Related Work Plans.

10 a. If EPA determines that modification to the work specified in the Mouth of
11 the Hylebos SOW and/or in work plans developed pursuant to the SOW is necessary to achieve
12 and maintain the Performance Standards or to carry out and maintain the effectiveness of the
13 remedy set forth in the ROD, EPA may require that such modification be incorporated in the
14 Mouth of the Hylebos SOW and/or such work plans. Provided, however, that a modification
15 may only be required pursuant to this Paragraph to the extent that it is consistent with the scope
16 of the remedy selected in the ROD.

17
18 b. For the purposes of Paragraphs 12, 47.b., and 48 only, the "scope of the
19 remedy selected in the ROD" shall mean the following:

20 *remediation of contaminated marine sediment in the Mouth of the Hylebos Waterway*
21 *Problem Area by implementing and maintaining the following key elements of the*
22 *selected remedy: site use restrictions, natural recovery, enhanced natural recovery,*
23 *sediment remedial action, and monitoring. These key elements are more fully described*
24

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1 in Section 10 of the September 30, 1989 ROD and the SOW and include achieving
 2 Performance Standards as defined in this Consent Decree.

3 c. If Settling Defendants object to any modification determined by EPA to be
 4 necessary pursuant to this Paragraph, they may seek dispute resolution pursuant to Section XIX
 5 (Dispute Resolution), Paragraph 67 (record review). The Mouth of the Hylebos SOW and/or
 6 related work plans shall be modified in accordance with final resolution of the dispute.
 7

8 d. Settling Defendants shall implement any work required by any
 9 modifications incorporated in the Mouth of the Hylebos SOW and/or in work plans developed
 10 pursuant to the SOW in accordance with this Paragraph.

11 e. Nothing in this Paragraph shall be construed to limit EPA's authority to
 12 require performance of further response actions as otherwise provided in this Consent Decree.
 13

14 13. Settling Defendants acknowledge and agree that nothing in this Consent Decree,
 15 or the SOW and/or related work plans, including the Remedial Designs, the Remedial Action
 16 Work Plans and the Operations, Maintenance and Monitoring Plan, constitutes a warranty or
 17 representation of any kind by Plaintiff that compliance with the work requirements set forth in
 18 the SOW and/or related work plans, including the Remedial Designs, the Remedial Action
 19 Work Plans and the Operations, Maintenance and Monitoring Plan, will achieve the Performance
 20 Standards.

21 14. a. Settling Defendants shall, prior to any off-Site shipment of Waste Material
 22 from the Mouth of the Hylebos Problem Area to an out-of-state waste management facility,
 23 provide written notification to the appropriate state environmental official in the receiving
 24

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1 facility's state and to the EPA Project Coordinator, identified in Section XII of this Consent
 2 Decree, of such shipment of Waste Material. However, this notification requirement shall not
 3 apply to any off-Site shipments when the total volume of all such shipments will not exceed 10
 4 cubic yards.

5 (1) The Settling Defendants shall include in the written notification
 6 the following information, where available: (1) the name and location of the facility to which the
 7 Waste Material is to be shipped; (2) the type and quantity of the Waste Material to be shipped;
 8 (3) the expected schedule for the shipment of the Waste Material; and (4) the method of
 9 transportation. The Settling Defendants shall notify the state in which the planned receiving
 10 facility is located of major changes in the shipment plan, such as a decision to ship the Waste
 11 Material to another facility within the same state, or to a facility in another state.

12 (2) The identity of the receiving facility and state will be determined
 13 by the Settling Defendants following the award of the contract for Remedial Action construction.
 14 The Settling Defendants shall provide the information required by Paragraph 14.a. as soon as
 15 practicable after the award of the contract and before the Waste Material is actually shipped.

16 b. Before shipping any hazardous substances, pollutants, or contaminants
 17 from the CB/NT Site to an off-site location, Settling Defendants shall obtain EPA's certification
 18 that the proposed receiving facility is operating in compliance with the requirements of
 19 CERCLA Section 121(d)(3) and 40 C.F.R. 300.440. Settling Defendants shall only send
 20 hazardous substances, pollutants, or contaminants from the CB/NT Site to an off-site facility that
 21 complies with the requirements of the statutory provision and regulations cited in the preceding
 22 sentence.
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VII. REMEDY REVIEW

15. Periodic Review. Settling Defendants shall conduct any studies and investigations concerning and related to the Mouth of the Hylebos Waterway Problem Area as requested by EPA, in order to permit EPA to conduct reviews of whether the Remedial Action at the Hylebos Waterway Problem Area is protective of human health and the environment at least every five years as required by Section 121(c) of CERCLA and any applicable regulations.

16. EPA Selection of Further Response Actions. If EPA determines, at any time, that the Remedial Action at the Hylebos Waterway Problem Area is not protective of human health and the environment, EPA may select further response actions for the Hylebos Waterway Problem Area in accordance with the requirements of CERCLA and the NCP.

17. Opportunity To Comment. Settling Defendants and, if required by Sections 113(k)(2) or 117 of CERCLA, the public, will be provided with an opportunity to comment on any further response actions proposed by EPA as a result of the review conducted pursuant to Section 121(c) of CERCLA and to submit written comments for the record during the comment period.

18. Settling Defendants' Obligation To Perform Further Response Actions. If EPA selects further response actions for the Mouth of the Hylebos Problem Area pursuant to Paragraph 16, the Settling Defendants shall undertake such further response actions to the extent that the reopener conditions in Paragraph 83 or Paragraph 84 (United States' reservations of liability based on unknown conditions or new information) are satisfied. Settling Defendants may invoke the procedures set forth in Section XIX (Dispute Resolution) to dispute (1) EPA's determination that the reopener conditions of Paragraph 83 or Paragraph 84 of Section XXI

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(Covenants Not To Sue by Plaintiff) are satisfied, (2) EPA's determination that the Remedial Action for the Mouth of the Hylebos Problem Area is not protective of human health and the environment, or (3) EPA's selection of the further response actions in the Mouth of the Hylebos Problem Area. Disputes pertaining to whether the Remedial Action is protective or to EPA's selection of further response actions shall be resolved pursuant to Paragraph 67 (record review). Settling Defendants' obligations to perform further response actions under this Paragraph do not pertain to releases or the potential threat of a release of a hazardous substance, pollutant or contaminant that occurs after certification of completion of the Remedial Action as described in Paragraph 47.b. if such release or threat of release is solely caused by a party or parties other than the Settling Defendants and the Settling Defendants are not otherwise potentially liable under CERCLA Section 107 for such release or potential threat of a release of a hazardous substance.

19. Submissions of Plans. If Settling Defendants are required to perform the further response actions pursuant to Paragraph 18, they shall submit a plan for such work to EPA for approval in accordance with the procedures set forth in Section VI (Performance of the Work by Settling Defendants) and shall implement the plan approved by EPA in accordance with the provisions of this Decree.

VIII. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

20. Settling Defendants shall use quality assurance, quality control, and chain of custody procedures for all samples taken under the SOW and this Consent Decree in accordance with the quality assurance provisions set forth in the SOW. If relevant to the proceeding, the Parties agree that validated sampling data generated in accordance with the Quality Assurance

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Project Plan(s) (QAPP(s)) and reviewed and approved by EPA shall be admissible as evidence, without objection, in any proceeding under this Decree. Settling Defendants shall ensure that EPA and State personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by Settling Defendants in implementing this Consent Decree. In addition, Settling Defendants shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance monitoring. Settling Defendants shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Consent Decree perform all analyses according to accepted EPA methods. Accepted EPA methods consist of those methods which are documented in the "Contract Lab Program Statement of Work for Inorganic Analysis" and the "Contract Lab Program Statement of Work for Organic Analysis," dated February 1988, and any amendments made thereto during the course of the implementation of this Decree; however, upon approval by EPA, the Settling Defendants may use other analytical methods which are as stringent as or more stringent than the CLP-approved methods. Settling Defendants shall ensure that all laboratories they use for analysis of samples taken pursuant to this Consent Decree participate in an EPA or EPA-equivalent QA/QC program. Settling Defendants shall only use laboratories that have a documented Quality System which complies with the provisions set forth in the SOW. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP) as meeting the Quality System requirements. Settling Defendants shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Decree will be conducted in accordance with the procedures set forth in the QAPP approved by EPA.

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21. Upon request, the Settling Defendants shall allow split or duplicate samples to be taken by EPA or its authorized representatives. Settling Defendants shall notify EPA not less than fourteen (14) days in advance of any sample collection activity unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow the Settling Defendants to take split or duplicate samples of any samples it takes as part of the Plaintiff's oversight of the Settling Defendants' implementation of the Work.

22. Settling Defendants shall submit to EPA four (4) copies of the results of all sampling and/or tests or other data obtained or generated by or on behalf of Settling Defendants with respect to the Mouth of the Hylebos Waterway Site and/or the implementation of this Consent Decree unless EPA agrees otherwise.

23. Notwithstanding any provision of this Consent Decree, the United States hereby retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA and any other applicable statutes or regulations.

IX. ACCESS AND INSTITUTIONAL CONTROLS

24. If the Hylebos Waterway Problem Area, or any other property where access and/or land/water use restrictions are needed to implement this Consent Decree or other response actions being taken under another Consent Decree or Order by EPA related to the Hylebos Waterway Problem Area, is owned or controlled by any of the Settling Defendants, such Settling Defendants shall:

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1 a. commencing on the date of lodging of this Consent Decree, provide the
 2 United States and the State and their representatives, including EPA and its contractors, and any
 3 other parties and their contractors performing response actions under the direction and
 4 supervision of EPA within the Hylebos Waterway Problem Area with access at all reasonable
 5 times to the property within the Hylebos Waterway Problem Area and the Occidental Site, or
 6 such other property, for the purpose of conducting any activity related to this Consent Decree or
 7 other response actions being taken under another Consent Decree or Order by EPA in the
 8 Hylebos Waterway Problem Area or Occidental Site including, but not limited to, the following
 9 activities:

10 (1) Monitoring the Work under this Consent Decree and other
 11 response actions being taken under any other Consent Decree or Order;

12 (2) Verifying any data or information submitted to the United States or
 13 the State;

14 (3) Conducting investigations relating to contamination at or near the
 15 Hylebos Waterway Problem Area;

16 (4) Obtaining samples;

17 (5) Assessing the need for, planning, or implementing additional
 18 response actions at or near the Hylebos Waterway Problem Area;

19 (6) Implementing the Work pursuant to the conditions set forth in
 20 Paragraph 87 of this Consent Decree, remedial action and operation maintenance and
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1 monitoring at the Head of the Hylebos Waterway Problem Area, and response actions at
2 the Occidental Site;

3 (7) Inspecting and copying records, operating logs, contracts, or other
4 documents related to the Work maintained or generated by Settling Defendants or their
5 agents, consistent with Section XXIV (Access to Information);
6

7 (8) Assessing Settling Defendants' compliance with this Consent
8 Decree;

9 (9) Determining whether the Hylebos Waterway Problem Area or
10 other property is being used in a manner that is prohibited or restricted, or that may need
11 to be prohibited or restricted, by or pursuant to this Consent Decree or another Consent
12 Decree or order by EPA related to the Hylebos Waterway Problem Area; and
13

14 (10) Assessing implementation of quality assurance and quality control
15 practices as defined in the approved Quality Assurance Project Plans.

16 b. commencing on the date of lodging of this Consent Decree, refrain from
17 using such property owned or controlled by Settling Defendants, in any manner that would
18 interfere with or adversely affect the implementation, integrity or protectiveness of the remedial
19 measures to be implemented pursuant to this Consent Decree, or another Consent Decree, or
20 Order by EPA in the Hylebos Waterway Problem Area so as to achieve the following
21 institutional control objectives to: prevent exposure of marine organisms to contaminated
22 sediments disposed of and confined in aquatic disposal sites or confined by capping; and/or
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1 prevent exposure to marine organisms to contaminated sediments left in place in the Hylebos
2 Waterway.

3
4 c. at EPA's request, execute and record in the Auditor's Office or Registry of
5 Deeds or other appropriate land records office of Pierce County, State of Washington, an
6 easement and/or restrictive covenant authorized by the Washington Model Toxics Control Act
7 (MTCA) (MTCA Covenant) and that complies with the form and content contained in WAC
8 173-340-440 for provision of access for the purpose of conducting any activity related to this
9 Consent Decree or another Consent Decree or Order by EPA relating to the Hylebos Waterway
10 Problem Area or Occidental Site and for implementation of institutional controls that are
11 required to assure continued protection of human health and the environment or the integrity of
12 the remedial action by meeting the institutional control objectives identified in Paragraph 24.b,
13 or or another Consent Decree or Order by EPA relating to the Hylebos Waterway Problem Area
14 or Occidental Site including, but not limited to, those listed in Paragraphs 24.a and 24.b of this
15 Consent Decree. Within thirty (30) days of EPA's request, Settling Defendants shall submit a
16 draft MTCA Covenant to EPA for approval. Settling Defendants shall execute and record the
17 EPA-approved MTCA Covenant within ten (10) days of its approval.

18 d. In the event that EPA and/or its authorized representatives or its
19 contractors requires access to Port of Tacoma property or the Pioneer property located at 605
20 Alexander Avenue for the purposes described in Paragraph 24(a) of this Consent Decree, the
21 Port of Tacoma or the Pioneer shall provide EPA and/or its authorized representatives or
22 contractors with access to its property upon a showing of appropriate identification by EPA
23 and/or its authorized representatives or its contractors.

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1 25. If the Mouth of the Hylebos Problem Area, or any other property where access
2 and/or land/water use restrictions are needed to implement this Consent Decree, is owned or
3 controlled by persons other than any of the Settling Defendants, Settling Defendants shall use
4 best efforts to secure from such persons:

5 a. an agreement to provide access thereto for Settling Defendants, as well as
6 for the United States on behalf of EPA, and the State, as well as their representatives (including
7 contractors), for the purpose of conducting any activity related to this Consent Decree including,
8 but not limited to, those activities listed in Paragraphs 9 and 24.a. of this Consent Decree;
9

10 b. an agreement, enforceable by the Settling Defendants and the United
11 States, to refrain from using the Mouth of the Hylebos Problem Area, or such other property, in
12 any manner that would interfere with or adversely affect the implementation, integrity, or
13 protectiveness of the remedial measures to be performed pursuant to this Consent Decree and to
14 abide by the obligations and objectives established by Paragraph 24.b. of this Consent Decree;
15 and

16 c. if EPA requests, a MTCA Covenant for provision of access and
17 implementation of institutional controls that are required to assure continued protection of
18 human health and the environment or the integrity of the remedial action. Within thirty (30)
19 days of EPA's request, Settling Defendants shall submit a draft MTCA Covenant to EPA for
20 approval. Settling Defendants shall execute and record the EPA approved MTCA Covenant
21 within ten (10) days of its approval.
22

23 26. For purposes of Paragraph 25 of this Consent Decree, "best efforts" includes the
24 payment of reasonable sums of money in consideration of access and/or restrictive covenants,

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1 unless the owner is a potentially responsible party for the Hylebos Waterway Problem Area. If
 2 any access agreements required by Paragraphs 25.a. of this Consent Decree are not obtained
 3 within forty-five (45) days of the date of entry of this Consent Decree, or any access easements
 4 or restrictive covenants required by Paragraph 25.c. of this Consent Decree are not submitted to
 5 EPA in draft form within forty-five (45) days from EPA's request, Settling Defendants shall
 6 promptly notify the United States in writing, and shall include in that notification a summary of
 7 the steps that Settling Defendants have taken to attempt to comply with Paragraph 25 of this
 8 Consent Decree. The United States may, as it deems appropriate, assist Settling Defendants in
 9 obtaining access or land/water use restrictions, either in the form of contractual agreements or in
 10 the form of easements running with the land. Settling Defendants shall reimburse the United
 11 States in accordance with the procedures in Section XVI (Reimbursement of Response Costs),
 12 for all costs incurred, direct or indirect, by the United States in obtaining such access and/or
 13 land/water use restrictions including, but not limited to, the cost of attorney time and the amount
 14 of monetary consideration paid or just compensation.

15 27. If EPA determines that land/water use restrictions in the form of state or local
 16 laws, regulations, ordinances or other governmental controls are needed to implement the
 17 remedy selected in the ROD, ensure the integrity and protectiveness thereof, or ensure non-
 18 interference therewith, Settling Defendants shall cooperate with EPA's efforts to secure such
 19 governmental controls by at a minimum: not contesting any proposed law, regulation, ordinance,
 20 or other proposed governmental control; supplying data or any other information generated
 21 and/or required by the SOW; or attending meetings in accordance with Section XXIV of this
 22 Consent Decree.
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28. Notwithstanding any provision of this Consent Decree, the United States retains all of its access authorities and rights, as well as all of their rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, or the MTCA, RCW 70.105D, and any other applicable statute or regulations.

X. REPORTING REQUIREMENTS

29. In addition to any other requirement of this Consent Decree, Settling Defendants shall submit to EPA four (4) copies of written monthly progress reports that: (a) describe the actions which have been taken toward achieving compliance with this Consent Decree during the previous month; (b) include a summary of all results of sampling and tests and all other data received or generated by Settling Defendants or their contractors or agents in the previous month; (c) identify all work plans, plans and other deliverables required by this Consent Decree completed and submitted during the previous month; (d) describe all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next six weeks and provide other information relating to the progress of construction, including, but not limited to, critical path diagrams, Gantt charts or Pert charts; (e) include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Work, and a description of efforts made to mitigate those delays or anticipated delays; (f) include any modifications to the work plans or other schedules that Settling Defendants have proposed to EPA or that have been approved by EPA; and (g) describe all activities undertaken in support of the Community Relations Plan during the previous month and those to be undertaken in the next six weeks. Settling Defendants shall submit these progress reports to EPA and the State by the tenth day of every month following the lodging of this Consent Decree until EPA notifies the Settling Defendants pursuant

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1 to Paragraph 48 of Section XIV (Certification of Completion) or until EPA approves a different
2 schedule. If requested by EPA, Settling Defendants shall also provide briefings for EPA to
3 discuss the progress of the Work.

4
5 30. The Settling Defendants shall notify EPA of any change in the schedule described
6 in the monthly progress report for the performance of any activity, including, but not limited to,
7 data collection and implementation of work plans, no later than seven days prior to the
8 performance of the activity.

9 31. Upon the occurrence of any event during performance of the Work that Settling
10 Defendants are required to report pursuant to Section 103 of CERCLA or Section 304 of the
11 Emergency Planning and Community Right-to-know Act (EPCRA), Settling Defendants shall
12 within twenty-four (24) hours of the onset of such event orally notify the EPA Project
13 Coordinator or the Alternate EPA Project Coordinator (in the event of the unavailability of the
14 EPA Project Coordinator), or, in the event that neither the EPA Project Coordinator or Alternate
15 EPA Project Coordinator is available, the Emergency Response Section, Region 10, United
16 States Environmental Protection Agency. These reporting requirements are in addition to the
17 reporting required by CERCLA Section 103 or EPCRA Section 304.

18
19 32. Within twenty (20) days of the onset of such an event, Settling Defendants shall
20 furnish to Plaintiff a written report, signed by the Settling Defendants' Project Coordinator,
21 setting forth the events which occurred and the measures taken, and to be taken, in response
22 thereto. Within thirty (30) days of the conclusion of such an event, Settling Defendants shall
23 submit a report setting forth all actions taken in response thereto.
24



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33. Settling Defendants shall submit four (4) copies of all plans, reports, and data required by the SOW or any other approved work plans to EPA in accordance with the schedules set forth in such plans. Settling Defendants shall simultaneously submit one (1) copy of all such plans, reports and data to the State and one (1) copy to NOAA on behalf of the Natural Resource Trustees. Upon request by EPA, Settling Defendants shall submit in electronic form all portions of any report or other deliverable Settling Defendants are required to submit pursuant to the provisions of this Consent Decree.

34. All reports and other documents submitted by Settling Defendants to EPA (other than the monthly progress reports referred to above) which purport to document Settling Defendants' compliance with the terms of this Consent Decree shall be signed by an authorized representative of the Settling Defendants, including the Supervising Contractor.

XI. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

35. After review of any plan, report or other item which is required to be submitted for approval pursuant to this Consent Decree, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that the Settling Defendants modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Settling Defendants at least one notice of deficiency and an opportunity to cure within thirty (30) days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects and the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

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1 36. In the event of approval, approval upon conditions, or modification by EPA,
 2 pursuant to Paragraph 35(a), (b), or (c), Settling Defendants shall proceed to take any action
 3 required by the plan, report, or other item, as approved or modified by EPA subject only to their
 4 right to invoke the Dispute Resolution procedures set forth in Section XIX (Dispute Resolution)
 5 with respect to the modifications or conditions made by EPA. In the event that the Settling
 6 Defendants fail to cure within thirty (30) days, and EPA modifies the submission to cure the
 7 deficiencies pursuant to Paragraph 35(c) and the submission has a material defect, EPA retains
 8 its right to seek stipulated penalties, as provided in Section XX (Stipulated Penalties).

9
 10 37. Resubmission of Plans.

11 a. Upon receipt of a notice of disapproval pursuant to Paragraph 35(d),
 12 Settling Defendants shall, within 30 days or such longer time as agreed to by EPA due to the
 13 magnitude of the comments in such notice, correct the deficiencies and resubmit the plan, report,
 14 or other item for approval. Any stipulated penalties applicable to the submission, as provided in
 15 Section XX, shall accrue during the 30 day period or otherwise specified period but shall not be
 16 payable unless the resubmission is disapproved or modified due to a material defect as provided
 17 in Paragraph 38 and 39. No stipulated penalties applicable to the submission, as provided in
 18 Section XX, shall accrue during the first 30-day correction period or other agreed upon
 19 correction period.

20
 21 b. Notwithstanding the receipt of a notice of disapproval pursuant to
 22 Paragraph 35(d), Settling Defendants shall proceed, at the direction of EPA, to take any action
 23 required by any non-deficient portion of the submission. Implementation of any non-deficient
 24

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1 portion of a submission shall not relieve Settling Defendants of any liability for stipulated
2 penalties under Section XX (Stipulated Penalties) related to the deficiencies.

3 38. In the event that a resubmitted plan, report or other item, or portion thereof, is
4 disapproved by EPA, EPA may again require the Settling Defendants to correct the deficiencies,
5 in accordance with the preceding Paragraphs. EPA also retains the right to modify or develop
6 the plan, report or other item. Settling Defendants shall implement any such plan, report, or
7 item as modified or developed by EPA, subject only to their right to invoke the procedures set
8 forth in Section XIX (Dispute Resolution).

9
10 39. If upon resubmission, a plan, report, or item is disapproved or modified by EPA
11 due to a material defect, Settling Defendants shall be deemed to have failed to submit such plan,
12 report, or item timely and adequately unless the Settling Defendants invoke the dispute
13 resolution procedures set forth in Section XIX (Dispute Resolution) and EPA's action is
14 overturned pursuant to that Section. The provisions of Section XIX (Dispute Resolution) and
15 Section XX (Stipulated Penalties) shall govern the implementation of the Work and accrual and
16 payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or
17 modification is upheld, stipulated penalties shall accrue for such violation from the date on
18 which the original submission was originally required, as provided in Section XX.

19 40. All plans, reports, and other items required to be submitted to EPA under this
20 Consent Decree shall, upon approval or modification by EPA, be enforceable under this Consent
21 Decree. In the event EPA approves or modifies a portion of a plan, report, or other item required
22 to be submitted to EPA under this Consent Decree, the approved or modified portion shall be
23 enforceable under this Consent Decree.
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XII. PROJECT COORDINATORS

41. The Settling Defendants' designated Project Coordinators are Suzanne Dudziak and Allen Meek and EPA's designated Project Coordinator is Jonathan Williams. If a Project Coordinator or Alternate Project Coordinator initially designated is changed, the identity of the successor will be given to the other Parties at least five (5) working days before the changes occur, unless impracticable, but in no event later than the actual day the change is made. Unless already reviewed and not disapproved by EPA, within five (5) days of the Effective Date of this Consent Decree, the Settling Defendants shall notify EPA of its proposed Project Coordinator who shall be subject to disapproval by EPA and shall have the technical expertise sufficient to adequately oversee all aspects of the Work. The Settling Defendants' Project Coordinator shall not be an attorney for any of the Settling Defendants in this matter. He or she may assign other representatives, including other contractors, to serve as a Mouth of the Hylebos Site representative for oversight of performance of daily operations during remedial activities.

42. Plaintiff may designate other representatives, including, but not limited to, EPA employees, and federal contractors and consultants, to observe and monitor the progress of any activity undertaken pursuant to this Consent Decree. EPA's Project Coordinator and Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager (RPM) and an On-Scene Coordinator (OSC) by the National Contingency Plan, 40 C.F.R. Part 300. In addition, EPA's Project Coordinator or Alternate Project Coordinator shall have authority, consistent with the National Contingency Plan, to halt any Work required by this Consent Decree and to take any necessary response action when s/he determines that conditions at the Mouth of the Hylebos Problem Area constitute an emergency situation or may present an

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1 immediate threat to public health or welfare or the environment due to release or threatened
2 release of Waste Material.

3
4 XIII. ASSURANCE OF ABILITY TO COMPLETE WORK

5 43. Within thirty (30) days of entry of this Consent Decree, Settling Defendants shall
6 together establish and maintain financial security in the amount of \$36.5 Million in one or more
7 of the following forms:

- 8 a. A surety bond guaranteeing performance of the Work;
9
10 b. One or more irrevocable letters of credit equaling the total estimated cost
11 of the Work;
12
13 c. A trust fund;
14
15 d. A guarantee to perform the Work by one or more parent corporations or
16 subsidiaries, or by one or more unrelated corporations that have a substantial business
17 relationship with at least one of the Settling Defendants; or
18
19 e. A demonstration that one or more of the Settling Defendants satisfy the
20 requirements of 40 C.F.R. Part 264.143(f).

21 44. If the Settling Defendants seek to demonstrate the ability to complete the Work
22 through a guarantee by a third party pursuant to Paragraph 43 of this Consent Decree, Settling
23 Defendants shall demonstrate that the guarantor satisfies the requirements of 40 C.F.R. Part
24 264.143(f). If Settling Defendants seek to demonstrate their ability to complete the Work by
25 means of the financial test or the corporate guarantee pursuant to Paragraph 43.d. or 43.e., they

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1 shall resubmit sworn statements conveying the information required by 40 C.F.R. Part
 2 264.143(f) annually, on the anniversary of the Effective Date. In the event that EPA determines
 3 at any time that the financial assurances provided pursuant to this Section are inadequate,
 4 Settling Defendants shall, within 30 days of receipt of notice of EPA's determination, obtain and
 5 present to EPA for approval one of the other forms of financial assurance listed in Paragraph 43
 6 of this Consent Decree. Settling Defendants' inability to demonstrate financial ability to
 7 complete the Work shall not excuse performance of any activities required under this Consent
 8 Decree.

9
 10 45. If Settling Defendants can show that the estimated cost to complete the remaining
 11 Work has diminished below the amount set forth in Paragraph 43 above after entry of this
 12 Consent Decree, Settling Defendants may, on any anniversary date of entry of this Consent
 13 Decree, or at any other time agreed to by the Parties, reduce the amount of the financial security
 14 provided under this Section to the estimated cost of the remaining work to be performed.
 15 Settling Defendants shall submit a proposal for such reduction to EPA, in accordance with the
 16 requirements of this Section, and may reduce the amount of the security upon approval by EPA.
 17 In the event of a dispute, Settling Defendants may reduce the amount of the security in
 18 accordance with the final administrative or judicial decision resolving the dispute.

19 46. Settling Defendants may change the form of financial assurance provided under
 20 this Section at any time, upon notice to and approval by EPA, provided that the new form of
 21 assurance meets the requirements of this Section. In the event of a dispute, Settling Defendants
 22 may change the form of the financial assurance only in accordance with the final administrative
 23 or judicial decision resolving the dispute.

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XIV. CERTIFICATION OF COMPLETION

47. a. Completion of the Remedial Action Construction.

(1) Within thirty (30) days after Settling Defendants conclude that the Remedial Action construction, including construction of any required mitigation, has been fully performed but before all the Performance Standards have been attained, Settling Defendants shall schedule and conduct a pre-certification inspection to be attended by Settling Defendants and EPA. If, after the pre-certification inspection(s), the Settling Defendants still believe that the Remedial Action construction has been fully performed, they shall submit a written Remedial Action Construction Report requesting certification to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions) within thirty (30) days of the inspection. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the Remedial Action construction has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer and other supporting documentation to demonstrate the Construction Quality Assurance Plan ("CQAP") required by the SOW was followed. The report shall contain the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If, after completion of the pre-certification construction inspection and receipt and review of the written report, EPA, after reasonable opportunity to review and comment by the State,

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determines that the Remedial Action construction or any portion thereof has not been completed in accordance with this Consent Decree, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to this Consent Decree to complete the Remedial Action construction. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree or require the Settling Defendants to submit a schedule to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions). Settling Defendants shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph, subject to their right to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

(2) If EPA concludes, based on the initial or any subsequent report requesting Certification of Remedial Action Construction Completion and after a reasonable opportunity for review and comment by the State, that the Remedial Action construction has been performed in accordance with this Consent Decree, EPA will so certify in writing to Settling Defendants. Certification of Completion of the Remedial Action construction shall not affect Settling Defendants' obligations under this Consent Decree.

b. Completion of Remedial Action

(1) Within thirty (30) days after Settling Defendants conclude that the Remedial Action has been fully performed and all the Performance Standards have been attained (e.g., natural recovery and full functioning of mitigation), Settling Defendants shall schedule and conduct a pre-certification inspection to be attended by Settling Defendants and EPA. If, after the pre-certification inspection(s), the Settling Defendants still believe that the Remedial Action

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has been fully performed and the Performance Standards have been attained, they shall submit a written Remedial Action Completion Report requesting certification to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions) within thirty (30) days of the inspection. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the Remedial Action has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer and other supporting documentation to demonstrate the CQAP was followed. The report shall contain the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If, after completion of the pre-certification inspection and receipt and review of the written report, EPA, after reasonable opportunity to review and comment by the State, determines that the Remedial Action or any portion thereof has not been completed in accordance with this Consent Decree or that the Performance Standards have not been achieved, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to this Consent Decree to complete the Remedial Action and achieve the Performance Standards. Provided, however, that EPA may only require Settling Defendants to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the "scope of the remedy selected in the ROD," as that term is defined in Paragraph 12.b. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree and the SOW or require the Settling Defendants to submit a schedule to EPA for

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1 approval pursuant to Section XI (EPA Approval of Plans and Other Submissions). Settling
 2 Defendants shall perform all activities described in the notice in accordance with the
 3 specifications and schedules established pursuant to this Paragraph, subject to their right to
 4 invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

5
 6 (2) If EPA concludes, based on the initial or any subsequent report
 7 requesting Certification of Remedial Action Completion and after a reasonable opportunity for
 8 review and comment by the State, that the Remedial Action has been performed in accordance
 9 with this Consent Decree and that the Performance Standards have been achieved, EPA will so
 10 certify in writing to Settling Defendants. This certification shall constitute the Certification of
 11 Completion of the Remedial Action for purposes of this Consent Decree, including, but not
 12 limited to, Section XXI (Covenants Not to Sue by Plaintiff). Certification of Completion of the
 13 Remedial Action shall not affect Settling Defendants' obligations under this Consent Decree.

14 48. Completion of the Work.

15 a. Within thirty (30) days after Settling Defendants conclude that all phases
 16 of the Work described in consistent with the SOW and this Consent Decree, have been fully
 17 performed, Settling Defendants shall schedule and conduct a pre-certification inspection to be
 18 attended by Settling Defendants and EPA. If, after the pre-certification inspection, the Settling
 19 Defendants still believe that the Work has been fully performed, Settling Defendants shall
 20 submit a Consent Decree Work Completion Report. In the report, a registered professional
 21 engineer shall state that the Work has been completed in full satisfaction of the requirements of
 22 this Consent Decree. The report shall contain the following statement, signed by a responsible
 23 corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:
 24

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1 To the best of my knowledge, after thorough investigation, I certify that the
 2 information contained in or accompanying this submission is true, accurate and
 3 complete. I am aware that there are significant penalties for submitting false
 4 information, including the possibility of fine and imprisonment for knowing
 5 violations.

6 If, after review of the written report, EPA, after reasonable opportunity to review and comment
 7 by the State, determines that any portion of the Work has not been completed in accordance with
 8 this Consent Decree, EPA will notify Settling Defendants in writing of the activities that must be
 9 undertaken by Settling Defendants pursuant to this Consent Decree to complete the Work.
 10 Provided, however, that EPA may only require Settling Defendants to perform such activities
 11 pursuant to this Paragraph to the extent that such activities are consistent with the "scope of the
 12 remedy selected in the ROD," as that term is defined in Paragraph 12.b. EPA will set forth in the
 13 notice a schedule for performance of such activities consistent with the Consent Decree and the
 14 SOW or require the Settling Defendants to submit a schedule to EPA for approval pursuant to
 15 Section XI (EPA Approval of Plans and Other Submissions). Settling Defendants shall perform
 16 all activities described in the notice in accordance with the specifications and schedules
 17 established therein, subject to their right to invoke the dispute resolution procedures set forth in
 18 Section XIX (Dispute Resolution).

19 b. If EPA concludes, based on the initial or any subsequent request for
 20 Certification of Completion by Settling Defendants and after a reasonable opportunity for review
 21 and comment by the State, that the Work has been performed in accordance with this Consent
 22 Decree, EPA will so notify the Settling Defendants in writing.

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XV. Emergency Response

49. In the event of any action or occurrence during the performance of the Work which causes or threatens a release of Waste Material from the Mouth of the Hylebos Problem Area that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Settling Defendants shall, subject to Paragraph 50, immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall immediately notify the EPA's Project Coordinator, or, if the Project Coordinator is unavailable, EPA's Alternate Project Coordinator. If neither of these persons is available, the Settling Defendants shall notify the EPA Emergency Response Unit, Region 10 at (206) 553-1263. Settling Defendants shall take such actions in consultation with EPA's Project Coordinator or other available authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plans, the Contingency Plans, and any other applicable plans or documents developed pursuant to the SOW. In the event that Settling Defendants fail to take appropriate response action as required by this Section, and EPA takes such action instead, Settling Defendants shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Reimbursement of Response Costs), unless Settling Defendants invoke dispute resolution proceedings under Section XIX of this Consent Decree and to the extent they prevail in such dispute resolution proceedings.

50. Nothing in the preceding Paragraph or in this Consent Decree shall be deemed to limit any authority of the United States a) to take all appropriate action to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Mouth of the Hylebos Problem Area, or b) to direct or order such action, or seek an order from the Court, to protect human health and the environment

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or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Mouth of the Hylebos Problem Area, subject to Section XXI (Covenants Not to Sue by Plaintiff).

XVI. PAYMENTS FOR RESPONSE COSTS

51. Payments for Future Response Costs.

a. Settling Defendants shall pay to EPA all Future Response Costs incurred prior to the Certification of the Work under Section XIV of this Consent Decree that are not inconsistent with the National Contingency Plan, excluding the first \$500,000 of Future Oversight Costs. Settling Defendants shall pay to EPA any and all additional Future Oversight Costs above this amount. On a periodic basis the United States will send Settling Defendants a bill requiring payment that includes a Superfund Cost Recovery Package Imaging and Online System (SCORPIOS) certified summary. Settling Defendants shall make all payments within thirty (30) days of Settling Defendants' receipt of each bill requiring payment, except as otherwise provided in Paragraph 52. Settling Defendants shall make all payments required by this Paragraph by a certified or cashier's check or checks or wire transfer made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party making the payment, EPA Site/Spill ID Number 102J, and DOJ Case Number 90-11-2-726/2. Settling Defendants shall send check(s) to:

Mellon Bank
EPA-Region 10
ATTN: Superfund Accounting,
P.O. Box 360903M,
Pittsburgh, PA 15251

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b. At the time of payment, Settling Defendants shall send notice that payment has been made to the United States, to EPA and to the Regional Financial Management Officer, in accordance with Section XXVI (Notices and Submissions).

c. The total amount to be paid by Settling Defendants pursuant to Subparagraph 51.a. shall be deposited in the Hylebos Waterway Problem Areas Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the CB/NT Site, or transferred by EPA to the EPA Hazardous Substance Superfund.

52. Settling Defendants may contest payment of any Future Response Costs under Paragraph 51 if they determine that the United States has made an accounting error or if they allege that a cost item that is included represents costs that are inconsistent with the NCP. Such objection shall be made in writing within thirty (30) days of receipt of the bill and must be sent to the United States pursuant to Section XXVI (Notices and Submissions). Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, the Settling Defendants shall within the 30-day period pay all uncontested Future Response Costs to the United States in the manner described in Paragraph 51. Simultaneously, the Settling Defendants shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Washington and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. The Settling Defendants shall send to the United States, as provided in Section XXVI (Notices and Submissions), a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account

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1 under which the escrow account is established as well as a bank statement showing the initial
 2 balance of the escrow account. Simultaneously with establishment of the escrow account, the
 3 Settling Defendants shall initiate the Dispute Resolution procedures in Section XIX (Dispute
 4 Resolution). If the United States prevails in the dispute, within five (5) days of the resolution of
 5 the dispute, the Settling Defendants shall pay the sums due (with accrued interest) to the United
 6 States in the manner described in Paragraph 51. If the Settling Defendants prevail concerning
 7 any aspect of the contested costs, the Settling Defendants shall pay that portion of the costs (plus
 8 associated accrued interest) for which they did not prevail to the United States in the manner
 9 described in Paragraph 51; Settling Defendants shall be disbursed any balance of the escrow
 10 account. The dispute resolution procedures set forth in this Paragraph in conjunction with the
 11 procedures set forth in Section XIX (Dispute Resolution) shall be the exclusive mechanisms for
 12 resolving disputes regarding the Settling Defendants' obligation to reimburse the United States
 13 for its Future Response Costs.

14
 15 53. In the event that the payments required by Paragraph 51 are not made within
 16 thirty (30) days of the Settling Defendants' receipt of the bill, Settling Defendants shall pay
 17 Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on
 18 the date of the bill. The Interest shall accrue through the date of the Settling Defendant's
 19 payment. Payments of Interest made under this Paragraph shall be in addition to such other
 20 remedies or sanctions available to Plaintiff by virtue of Settling Defendants' failure to make
 21 timely payments under this Section including, but not limited to, payment of stipulated penalties
 22 pursuant to Paragraph 72. The Settling Defendants shall make all payments required by this
 23 Paragraph in the manner described in Paragraph 51.

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54. Payment of Settlement Funds to Settling Defendants. EPA shall provide notice to the escrow agent of the Hylebos Waterway Problem Areas Escrow Account to disburse funds from the Hylebos Waterway Problem Areas Escrow Account to the Mouth of the Hylebos Cleanup Account when the following conditions are satisfied: (1) this Consent Decree is entered by the Court; (2) Settling Defendants have established appropriate financial assurances in accordance with Section XIII (Assurance of Ability to Complete Work); (3) the parties to the Cash-Out Consent Decree have delivered funds to the Hylebos Waterway Problem Areas Escrow Account in accordance with the terms of the Cash-Out Consent Decree and its appended Escrow Agreement; (4) an initial distribution of \$434,733.00 has been made from the Hylebos Waterway Problem Areas Escrow Account to the EPA Hylebos Waterway Problem Areas Special Account in accordance with paragraph 6 of the Escrow Agreement appended to the Cash-Out Consent Decree; and (5) the Settling Defendants provide to EPA a copy of a signed final decision by a neutral mediator/arbitrator setting forth a fixed percentage of all funds deposited in the Hylebos Waterway Problem Areas Escrow Account (less \$434,733.00) to be distributed to the Mouth of Cleanup Account pursuant to the terms and conditions of the Cash-Out Consent Decree.

55. Upon satisfaction of the conditions set forth in Paragraph 54, and the Settling Defendants' provisions of instructions for transferring funds from the Hylebos Waterway Problem Areas Escrow Account to the Mouth of the Hylebos Cleanup Account, EPA shall take action sufficient to cause a distribution of the funds pursuant to paragraph 6 of the Escrow Agreement appended to the Cash-Out Consent Decree. In accordance with the decision described in condition (5) of Paragraph 54, and the instructions for transferring funds provided by Settling Defendants, the appropriate fixed percentage of all funds deposited in the Hylebos Waterway Problem Areas Escrow Account (less \$434,733.00) shall be disbursed to the Mouth of

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1 the Hylebos Cleanup Account, less one-half fees to be paid pursuant to paragraph 9 of the
2 Escrow Agreement appended to the Cash-Out Consent Decree.

3
4 56. The Mouth of the Hylebos Cleanup Account shall be maintained as a separate
5 account, and shall only include proceeds distributed to this Account pursuant to Paragraph 55 of
6 this Consent Decree and any interest that accrues thereon. Funds from the Mouth of the Hylebos
7 Cleanup Account distributed to the Port of Tacoma and Occidental Chemical Corporation shall
8 only be used to pay for Remedial Action that has been or will be performed at the Mouth of the
9 Hylebos Waterway Site. The Settling Defendants shall provide to EPA quarterly statements
10 showing the Mouth of the Hylebos Account balance and identifying all invoices paid with Mouth
11 of the Hylebos Account funds. The Settling Defendants shall provide EPA with all invoices if
12 requested by EPA. All funds remaining in the Mouth of the Hylebos Cleanup Account shall be
13 transferred to EPA within three days of any of the following circumstances: (1) EPA certifies
14 completion of the Work pursuant to Paragraph 48 of the Consent Decree; (2) EPA assumes
15 performance of the Work pursuant to Paragraph 87 of this Consent Decree; or (3) all Settling
16 Defendants become insolvent or cease performing the Work.

17 XVII. INDEMNIFICATION AND INSURANCE

18 57. Settling Defendants' Indemnification of the United States

19
20 a. The United States does not assume any liability by entering into this
21 agreement or by virtue of any designation of Settling Defendants as EPA's authorized
22 representatives under Section 104(e) of CERCLA. Settling Defendants shall indemnify, save
23 and hold harmless the United States and its officials, agents, employees, contractors,
24 subcontractors, or representatives for or from any and all claims or causes of action arising from,

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or on account of, negligent or other wrongful acts or omissions of Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree, including, but not limited to, any claims arising from any designation of Settling Defendants as EPA's authorized representatives under Section 104(e) of CERCLA. Further, the Settling Defendants agree to pay the United States all costs it incurs including, but not limited to, attorneys fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree. The United States shall not be held out as a party to any contract entered into by or on behalf of Settling Defendants in carrying out activities pursuant to this Consent Decree. Neither the Settling Defendants nor any such contractor shall be considered an agent of the United States. The United States shall give Settling Defendants notice of any claim for which the United States plans to seek indemnification pursuant to this Paragraph and shall consult with Settling Defendants prior to settling such claim.

58. Settling Defendants waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Settling Defendants and any person for performance of Work on or relating to the Mouth of the Hylebos Problem Area, including, but not limited to, claims on account of construction delays. In addition, Settling Defendants shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any

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1 contract, agreement, or arrangement between any one or more of Settling Defendants and any
 2 person for performance of Work on or relating to the Mouth of the Hylebos Problem Area,
 3 including, but not limited to, claims on account of construction delays.

4
 5 59. No later than fifteen (15) days before commencing any on-site Work, Settling
 6 Defendants shall secure, and shall maintain until the first anniversary of EPA's Certification of
 7 Completion of the Remedial Action pursuant to Subparagraph 47.b. of Section XIV
 8 (Certification of Completion) comprehensive general liability insurance with limits of \$25
 9 million combined single limit, and automobile liability insurance with limits of \$2 million
 10 dollars, combined single limit, naming the United States as an additional insured. In addition,
 11 for the duration of this Consent Decree, Settling Defendants shall satisfy, or shall ensure that
 12 their contractors or subcontractors satisfy, all applicable laws and regulations regarding the
 13 provision of worker's compensation insurance for all persons performing the Work on behalf of
 14 Settling Defendants in furtherance of this Consent Decree. Prior to commencement of the Work
 15 under this Consent Decree, Settling Defendants shall provide to EPA certificates of such
 16 insurance and a copy of each insurance policy. Settling Defendants shall resubmit such
 17 certificates and copies of policies each year on the anniversary of the Effective Date. If Settling
 18 Defendants demonstrate by evidence satisfactory to EPA that any contractor or subcontractor
 19 maintains insurance equivalent to that described above, or insurance covering the same risks but
 20 in a lesser amount, then, with respect to that contractor or subcontractor, Settling Defendants
 21 need provide only that portion of the insurance described above which is not maintained by the
 22 contractor or subcontractor.

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XVIII. FORCE MAJEURE

60. "Force Majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of the Settling Defendants, of any entity controlled by Settling Defendants, or of Settling Defendants' contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Settling Defendants' best efforts to fulfill the obligation. The requirement that the Settling Defendants exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential Force Majeure event and best efforts to address the effects of any potential Force Majeure event (1) as it is occurring and (2) following the potential Force Majeure event, such that the delay is minimized to the greatest extent possible. "Force Majeure" does not include financial inability to complete the Work or a failure to attain the Performance Standards.

61. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a Force Majeure event, the Settling Defendants shall notify orally EPA's Project Coordinator or, in his or her absence, EPA's Alternate Project Coordinator or, in the event both of EPA's designated representatives are unavailable, the Director of the Environmental Cleanup Office, EPA Region 10, within seventy-two (72) hours of when Settling Defendants first knew that the event might cause a delay. If the seventy-two (72) hour notification period expires on a Saturday, Sunday or federal holiday, the Settling Defendants shall provide oral notice no later than 12:00 p.m. (Noon) on the next working day. Within ten (10) days thereafter, Settling Defendants shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the

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1 delay; the Settling Defendants' rationale for attributing such delay to a Force Majeure event if
 2 they intend to assert such a claim; and a statement as to whether, in the opinion of the Settling
 3 Defendants, such event may cause or contribute to an endangerment to public health, welfare or
 4 the environment. The Settling Defendants shall include with any notice all available
 5 documentation supporting their claim that the delay was attributable to a Force Majeure. Failure
 6 to comply with the above requirements shall preclude Settling Defendants from asserting any
 7 claim of Force Majeure for that event for the period of time of such failure to comply, and for
 8 any additional delay caused by such failure. Settling Defendants shall be deemed to know of any
 9 circumstance of which Settling Defendants, any entity controlled by Settling Defendants, or
 10 Settling Defendants' contractors knew or should have known.

11
 12 62. If EPA agrees that the delay or anticipated delay is attributable to a Force Majeure
 13 event, the time for performance of the obligations under this Consent Decree that are affected by
 14 the Force Majeure event will be extended by EPA for such time as is necessary to complete
 15 those obligations. An extension of the time for performance of the obligations affected by the
 16 Force Majeure event shall not, of itself, extend the time for performance of any other obligation
 17 not affected by the Force Majeure event. If EPA does not agree that the delay or anticipated
 18 delay has been or will be caused by a Force Majeure event, EPA will notify the Settling
 19 Defendants in writing of its decision. If EPA agrees that the delay is attributable to a Force
 20 Majeure event, EPA will notify the Settling Defendants in writing of the length of the extension,
 21 if any, for performance of the obligations affected by the Force Majeure event.

22 63. If the Settling Defendants elect to invoke the dispute resolution procedures set
 23 forth in Section XIX (Dispute Resolution), they shall do so no later than thirty (30) days after
 24 receipt of EPA's notice. In any such proceeding, Settling Defendants shall have the burden of

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demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Settling Defendants complied with the requirements of Paragraphs 60 and 61, above. If Settling Defendants carry this burden, the delay at issue shall be deemed not to be a violation by Settling Defendants of the affected obligation of this Consent Decree identified to EPA and the Court.

XIX. DISPUTE RESOLUTION

64. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the United States to enforce obligations of the Settling Defendants that have not been disputed in accordance with this Section.

65. Any dispute which arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations shall not exceed twenty (20) days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute. The dispute shall be considered to have arisen when one party sends the other party a written Notice of Dispute.

66. Statements of Position

a. In the event that the parties cannot resolve a dispute by informal negotiations under the preceding Paragraph, then the position advanced by EPA shall be

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1 considered binding unless, within twenty (20) days after the conclusion of the informal
 2 negotiation period, Settling Defendants invoke the formal dispute resolution procedures of this
 3 Section by serving on the United States a written Statement of Position on the matter in dispute,
 4 including, but not limited to, any factual data, analysis or opinion supporting that position and
 5 any supporting documentation relied upon by the Settling Defendants. The Statement of
 6 Position shall specify the Settling Defendants' position as to whether formal dispute resolution
 7 should proceed under Paragraph 67 or Paragraph 68.

8
 9 b. Within 20 days after receipt of Settling Defendants' Statement of Position,
 10 EPA will serve on Settling Defendants its Statement of Position, including, but not limited to,
 11 any factual data, analysis, or opinion supporting that position and all supporting documentation
 12 relied upon by EPA. EPA's Statement of Position shall include a statement as to whether formal
 13 dispute resolution should proceed under Paragraph 67 or 68. Within 7 days after receipt of
 14 EPA's Statement of Position, Settling Defendants may submit a Reply.

15 c. If there is disagreement between EPA and the Settling Defendants as to
 16 whether dispute resolution should proceed under Paragraph 67 or 68, the parties to the dispute
 17 shall follow the procedures set forth in the paragraph determined by EPA to be applicable.
 18 However, if the Settling Defendants ultimately appeal to the Court to resolve the dispute, the
 19 Court shall determine which paragraph is applicable in accordance with the standards of
 20 applicability set forth in Paragraphs 67 and 68.

21
 22 67. Formal dispute resolution for disputes pertaining to the selection or adequacy of
 23 any response action and all other disputes that are accorded review on the administrative record
 24 under applicable principles of administrative law shall be conducted pursuant to the procedures

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1 set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any response action
 2 includes, without limitation: (1) the adequacy or appropriateness of plans, procedures to
 3 implement plans, or any other items requiring approval by EPA under this Consent Decree; and
 4 (2) the adequacy of the performance of response actions taken pursuant to this Consent Decree.
 5 Nothing in this Consent Decree shall be construed to allow any dispute by Settling Defendants
 6 regarding the validity of the ROD's provisions.

7
 8 a. An administrative record of the dispute shall be maintained by EPA and
 9 shall contain all statements of position, including supporting documentation, submitted pursuant
 10 to this Section. Where appropriate, EPA may allow submission of supplemental statements of
 11 position by the parties to the dispute.

12 b. The Director of the Office of Environmental Cleanup, EPA Region 10,
 13 will issue a final administrative decision resolving the dispute based on the administrative record
 14 described in Paragraph 67.a. This decision shall be binding upon the Settling Defendants,
 15 subject only to the right to seek judicial review pursuant to Paragraph 67.c. and d.

16
 17 c. Any administrative decision made by EPA pursuant to Paragraph 67.b.
 18 shall be reviewable by this Court, provided that a motion for judicial review of the decision is
 19 filed by the Settling Defendants with the Court and served on all Parties within twenty (20) days
 20 of receipt of the final decision by the Director of the Office of Environmental Cleanup, EPA
 21 Region 10. The motion shall include a description of the matter in dispute, the efforts made by
 22 the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute
 23 must be resolved to ensure orderly implementation of this Consent Decree. The United States
 24 may file a response to Settling Defendants' motion within twenty (20) days of receipt of the

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1 motion or within any different time frame that the local court rules may provide, and Settling
 2 Defendants may file a reply brief within five (5) days of receipt of the response or such different
 3 time frame that the local court rules may provide.

4 d. In proceedings on any dispute governed by this Paragraph, Settling
 5 Defendants shall have the burden of demonstrating that the decision of the Director of the Office
 6 of Environmental Cleanup is arbitrary and capricious or otherwise not in accordance with law.
 7 Judicial review of EPA's decision shall be on the administrative record compiled pursuant to
 8 Paragraph 67.a.
 9

10 68. Formal dispute resolution for disputes that neither pertain to the selection or
 11 adequacy of any response action nor are otherwise accorded review on the administrative record
 12 under applicable principles of administrative law, shall be governed by this Paragraph.

13 a. Following receipt of Settling Defendants' Statement of Position submitted
 14 pursuant to Paragraph 66, the Director of the Office of Environmental Cleanup, EPA Region 10,
 15 will issue a final decision resolving the dispute. The decision of the Director of the Office of
 16 Environmental Cleanup shall be binding on the Settling Defendants unless, within twenty (20)
 17 days of receipt of the decision, the Settling Defendants file with the Court and serve on the
 18 parties a motion for judicial review of the decision setting forth the matter in dispute, the efforts
 19 made by the parties to resolve it, the relief requested, and the schedule, if any, within which the
 20 dispute must be resolved to ensure orderly implementation of the Consent Decree. The United
 21 States may file a response to Settling Defendants' motion within twenty (20) days of receipt of
 22 the motion or within any different time frame that the local court rules may provide, and Settling
 23
 24

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69. The invocation of formal dispute resolution procedures under this Section shall not extend, postpone or affect in any way any obligation of the Settling Defendants under this Consent Decree, not directly in dispute, unless EPA or the Court agrees otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute as provided in Paragraph 78. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Consent Decree. In the event that the Settling Defendants do not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XX (Stipulated Penalties).

70. Settling Defendants shall be liable for stipulated penalties in the amounts set forth in Paragraphs 71 and 72 to the United States for failure to comply with the requirements of this Consent Decree specified below, unless excused under Section XVIII (Force Majeure) or otherwise resolved in Dispute Resolution. "Compliance" by Settling Defendants shall include completion of the activities under this Consent Decree or SOW or other Work plan approved under this Consent Decree identified below in accordance with all applicable requirements of law, this Consent Decree, the SOW, and any plans or other documents approved by EPA

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pursuant to this Consent Decree and within the specified time schedules established by and approved under this Consent Decree.

71. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Subparagraph 71.b after the opportunity to cure submissions pursuant to Section XI of this Consent Decree, if applicable:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1st through 30th day
\$5,000	31st through 60th day
\$8,000	61st day and beyond

b. Compliance Milestones.

1. Remedial Action Work Plans - failure to submit timely or adequate draft and revised final drafts of any such plans
2. Remedial Action Construction Schedules -- failure to perform remedial action construction or any discrete phases and/or individual components of the remedial action on the approved schedule or in an adequate manner or not in compliance with the SOW or approved remedial action work plan or deliverables

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3. Completion Reports - failure to submit timely or adequate completion reports listed below

- a. Remedial Action Construction Report
- b. Remedial Action Completion Report

4.. Operation, Maintenance and Monitoring

- a. failure to perform timely and adequate monitoring in accordance with the approved OMMP and approved schedule
- b. failure to submit timely and adequate monitoring reports
- c. failure to perform maintenance on any component of the remedial action on the required schedule and in accordance with approved work plans or EPA requests

72. Stipulated Penalty Amounts - Reports, Other Deliverables, and Other Violations of the Consent Decree.

a. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate monthly progress reports, any deliverable required by the SOW or this Consent Decree after the opportunity to cure submissions pursuant to Section XI of this Consent Decree, except those listed in Paragraph 71.b. above, or any other violation of this

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Consent Decree, including, but not limited to, late payments required under this Consent Decree :

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1st through 14th day
\$1,000	15th through 30th day
\$2,500	31st day and beyond

73. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 87 of Section XXI (Covenants Not to Sue by Plaintiff), Settling Defendants shall be liable for a stipulated penalty in the amount of three times the cost incurred by EPA to perform the work or \$1,000,000, whichever is less.

74. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, except as otherwise provided in this Consent Decree, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section XI (EPA Approval of Plans and Other Submissions), until receipt of the second notice of deficiency during the period, if any, beginning on the 21st day after EPA's receipt of such submission until the date that EPA notifies Settling Defendants of any deficiency; (2) with respect to a decision by the Director of the Office of Environmental Cleanup, EPA Region 10, under Paragraph 67.b. or 68.a of Section XIX (Dispute Resolution), during the period, if any, beginning on the 21st day after the date that Settling Defendants' reply to EPA's Statement of Position is received until the date that the Director issues a final decision regarding

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such dispute; or (3) with respect to judicial review by this Court of any dispute under Section XIX (Dispute Resolution), during the period, if any, beginning on the 31st day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

75. Following EPA's determination that Settling Defendants have failed to comply with a requirement of this Consent Decree, EPA may give Settling Defendants written notification of the same and describe the noncompliance. For violations based on submissions or Work being inadequately prepared or performed, EPA shall provide written notification and describe the noncompliance. EPA shall send the Settling Defendants a written demand for the payment of the penalties. However, penalties shall begin accruing as provided in the preceding Paragraph regardless of whether EPA has notified the Settling Defendants of a violation or when the demand is sent.

76. All penalties accruing under this Section shall be due and payable to the United States within thirty (30) days of the Settling Defendants' receipt from EPA of a demand for payment of the penalties, unless Settling Defendants invoke the Dispute Resolution procedures under Section XIX (Dispute Resolution). All payments of stipulated penalties made under this Paragraph shall be identified as "stipulated penalties" and shall be made by certified or cashier's check made payable to "EPA Hazardous Substance Superfund," shall be mailed to Mellon Bank, EPA-Region 10, ATTN Superfund Accounting, P.O. Box 360903M, Pittsburgh, PA 15251, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID, and DOJ Case Number 90-11-2-726/2, and the name and address of the party making payment. Copies of check(s) paid pursuant to this Section, and any accompanying

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transmittal letter(s), shall be sent to the United States as provided in Section XXVI (Notices and Submissions), and to the EPA Regional Financial Management Officer.

77. The payment of penalties shall not alter in any way Settling Defendants' obligation to complete the performance of the Work required under this Consent Decree.

78. Penalties shall continue to accrue as provided in Paragraph 74 during any dispute resolution period, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to this Court, accrued penalties determined to be owing shall be paid to EPA within fifteen (15) days of the agreement or the receipt of EPA's decision or order;

b. If the dispute is appealed to this Court and the United States prevails in whole or in part, Settling Defendants shall pay all accrued penalties determined by the Court to be owed to EPA within sixty (60) days of receipt of the Court's decision or order, except as provided in Subparagraph c below;

c. If the United States prevails in whole or in part, and the District Court's decision is appealed by any Party, Settling Defendants shall pay all accrued penalties determined by the District Court to be owing to the United States into an interest-bearing escrow account within 60 days of receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every sixty (60) days. Within fifteen (15) days of receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to EPA or to Settling Defendants to the extent that they prevail. If the United States does not prevail in whole or in part, no such penalties shall be assessed against Settling Defendants.

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79. If Settling Defendants fail to pay stipulated penalties when due, the United States may institute proceedings to collect the penalties, as well as interest. Settling Defendants shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 76.

80. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States to seek any other remedies or sanctions available by virtue of Settling Defendants' violation of this Consent Decree or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA. Provided, however, that the United States shall not seek civil penalties pursuant to Section 122(l) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of the Consent Decree.

81. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Consent Decree.

XXI. COVENANTS BY PLAINTIFF

82. In consideration of the actions and commitments that will be performed and the payments that will be made by the Settling Defendants under the terms of the Consent Decree, and except as specifically provided in Paragraphs 83, 84, and 86 of this Section, the United States covenants not to sue or to take administrative action against Settling Defendants pursuant to Sections 106 and 107(a) of CERCLA relating to the Hylebos Waterway Problem Area. Except with respect to future liability, these covenants not to sue shall take effect upon the Effective Date of this Consent Decree. With respect to future liability for the Mouth of the

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Hylebos Waterway Problem Area, these covenants shall take effect upon Certification of Completion of Remedial Action by EPA for the Mouth of the Hylebos Waterway Problem Area pursuant to Paragraph 47.b of Section XIV (Certification of Completion). With respect to future liability for the Head of the Hylebos Waterway Problem Area, these covenants shall take effect upon Certification of Completion of Remedial Action by EPA for the Head of the Hylebos Waterway Problem Area. These covenants are conditioned upon the satisfactory performance by Settling Defendants of their obligations under this Consent Decree. These covenants not to sue extend only to the Settling Defendants and do not extend to any other person.

83. United States' Pre-certification Reservations. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Settling Defendants,

a. to perform further response actions relating to the Mouth of the Hylebos Waterway Problem Area or

b. to reimburse the United States for additional costs of response if, prior to Certification of Completion of the Remedial Action:

(1) conditions at the Mouth of the Hylebos Waterway Problem Area, previously unknown to EPA, are discovered, or

(2) information, previously unknown to EPA, is received, in whole or in part,

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1 and EPA determines that these previously unknown conditions or information together with any
 2 other relevant information indicates that the Remedial Action is not protective of human health
 3 or the environment.

4 84. United States' Post-certification Reservations. Notwithstanding any other
 5 provision of this Consent Decree, the United States reserves, after Certification of Completion of
 6 Remedial Action and this Consent Decree is without prejudice to, the right to institute
 7 proceedings in this action or in a new action, or to issue an administrative order seeking to
 8 compel Settling Defendants,
 9

10 a. to perform further response actions relating to the Mouth of the Hylebos
 11 Waterway Problem Area or

12 b. to reimburse the United States for additional costs of response if,
 13 subsequent to Certification of Completion of the Remedial Action:
 14

15 (1) conditions at the Mouth of the Hylebos Waterway Problem Area,
 16 previously unknown to EPA, are discovered, or

17 (2) information, previously unknown to EPA, is received, in whole or
 18 in part,
 19

20 and EPA determines that these previously unknown conditions or this information together with
 21 other relevant information indicate that the Remedial Action is not protective of human health or
 22 the environment.
 23
 24

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85. For purposes of Paragraph 83, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the date this Consent Decree is lodged as set forth in the Record of Decision, the administrative records supporting the Record of Decision, the July 1997 and August 2000 ESDs, and any EPA approved remedial design submittals generated by the Settling Defendants as of the date this Consent Decree is lodged. For purposes of Paragraph 84, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the date of Certification of Completion of the Remedial Action as set forth in the Record of Decision, the administrative records supporting the Record of Decision and July, 1997 and August, 2000 ESDs, and any information received by EPA pursuant to the requirements of this Consent Decree prior to Certification of Completion of the Remedial Action.

86. General reservations of rights. The United States reserves, and this Consent Decree is without prejudice to, all rights against Settling Defendants with respect to all matters not expressly included within Plaintiff's covenant not to sue. Notwithstanding any other provision of this Consent Decree, the United States reserves all rights against Settling Defendants with respect to:

a. claims based on a failure by Settling Defendants to meet a requirement of this Consent Decree;

b. liability arising from the past, present, or future disposal, release, or threat of release of Waste Materials outside of the Hylebos Waterway Problem Area, including, but not limited to, any other Problem Area or Operable Unit in the CB/NT Site;

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c. future liability based upon the Settling Defendants' ownership or operation of property within the Hylebos Waterway Problem Area, or upon the Settling Defendants' transportation, treatment, storage, or disposal, or the arrangement for the transportation, treatment, storage, or disposal of Waste Material at or in connection with the Hylebos Waterway Problem Area, other than as provided in the ROD, the Work, or otherwise ordered by EPA, after signature of this Consent Decree by the Settling Defendants;

d. liability for hazardous substances buried at subsurface depths at the Hylebos Waterway Problem Area as of the Effective Date of this Consent Decree and are located within no action areas as designated in the August 2000 ESD which hazardous substances were released by Settling Defendants or their tenants or came to be located on property owned or operated by Settling Defendants and, in EPA's discretion, require response action;

e. liability for response actions in the Head of the Hylebos Waterway Problem Area or Occidental Site if other parties do not perform required response actions under an Order or a consent decree;

f. with respect to all Settling Defendants other than the Port of Tacoma, liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

g. criminal liability;

h. liability for violations of federal or state law which occur during or after implementation of the Remedial Action at the Hylebos Waterway; and

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i. liability, prior to Certification of Completion of the Remedial Action at the Mouth of the Hylebos Problem Area, for additional response actions that EPA determines are necessary to achieve Performance Standards, but that cannot be required pursuant to Paragraph 12 (Modification of the SOW or Related Work Plans);

87. Work Takeover. In the event EPA determines that Settling Defendants have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, after providing Settling Defendants one opportunity to cure and after notice to Settling Defendants, EPA may assume the performance of all or any portions of the Work as EPA determines necessary. In the event EPA determines that Settling Defendants are implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary without notice or opportunity to cure to Settling Defendants. Settling Defendants may invoke the procedures set forth in Section XIX (Dispute Resolution), Paragraph 67, to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Settling Defendants shall pay pursuant to Section XVI (Reimbursement of Response Costs).

88. Notwithstanding any other provision of this Consent Decree, the United States retains all authority and reserves all rights to take any and all response actions authorized by law.

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XXII. COVENANTS BY SETTLING DEFENDANTS

89. Covenant Not to Sue by Settling Defendants. Subject to the reservations in Paragraph 90, Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against the United States with respect to the Hylebos Waterway Problem Area or this Consent Decree, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507) through CERCLA Sections 106(b)(2), 107, 111, 112, 113 or any other provision of law;

b. any claims against the United States, including any department, agency or instrumentality of the United States under CERCLA Sections 107 or 113 related to the Hylebos Waterway Problem Area; or

c. any claims arising out of response activities at the Hylebos Waterway Problem Area, including claims based on EPA's selection of response actions, oversight of response activities or approval of plans for such activities, including any claim under the United States Constitution, the Washington State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

d. any direct or indirect claim for disbursement from the Hylebos Waterway Problem Areas Special Account, except as expressly provided in Paragraphs 54, 55 and 56 of this Consent Decree.

90. The Settling Defendants reserve, and this Consent Decree is without prejudice to:

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a. claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response actions, or the oversight or approval of the Settling Defendants' plans or activities. The foregoing applies only to claims which are brought pursuant to any statute other than CERCLA and for which the waiver of sovereign immunity is found in a statute other than CERCLA; and

b. contribution claims against the United States arising out of an action initiated under 42 U.S.C. § 9607(f) for natural resource damages pertaining to the Hylebos Waterway Site.

91. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XXIII. EFFECT OF SETTLEMENT; CONTRIBUTION PROTECTION

92. Nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this decree

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1 may have under applicable law. Each of the Parties expressly reserves any and all rights
 2 (including, but not limited to, any right to contribution), defenses, claims, demands, and causes
 3 of action which each Party may have with respect to any matter, transaction, or occurrence
 4 relating in any way to the CB/NT Site against any person not a Party hereto nor a Party to that
 5 consent decree related to remedial action at the Head of the Hylebos Waterway Problem Area.

6
 7 93. The Parties agree, and by entering this Consent Decree this Court finds, that the
 8 Settling Defendants are entitled, as of the Effective Date, to protection from contribution actions
 9 or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2) for matters
 10 addressed in this Consent Decree. "Matters Addressed" in this Consent Decree include all
 11 response actions taken or to be taken, and all response costs incurred or to be incurred by the
 12 United States, the Settling Defendants, the parties implementing remedial design and remedial
 13 action in the Head of the Hylebos Waterway or any other person with respect to the Hylebos
 14 Waterway Problem Area. Matters Addressed shall not include those response costs or response
 15 actions as to which the United States has reserved its rights under this Consent Decree, in the
 16 event that the United States asserts such rights against Settling Defendants of this Consent
 17 Decree.

18 94. The Settling Defendants agree that with respect to any suit or claim for
 19 contribution brought by them for matters related to this Consent Decree they will notify the
 20 United States in writing no later than sixty (60) days prior to the initiation of such suit or claim.

21 95. The Settling Defendants also agree that with respect to any suit or claim for
 22 contribution brought against them for matters related to this Consent Decree they will notify in
 23 writing the United States within ten (10) days of service of the complaint on them. In addition,
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1 Settling Defendants shall notify the United States within ten (10) days of service or receipt of
 2 any Motion for Summary Judgment and within ten (10) days of receipt of any order from a court
 3 setting a case for trial.

4
 5 96. In any subsequent administrative or judicial proceeding initiated by the United
 6 States for injunctive relief, recovery of response costs, or other appropriate relief relating to the
 7 CB/NT Site or Hylebos Waterway Problem Area, Settling Defendants shall not assert, and may
 8 not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral
 9 estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the
 10 claims raised by the United States in the subsequent proceeding were or should have been
 11 brought in the instant case; provided, however, that nothing in this Paragraph affects the
 12 enforceability of the covenants not to sue set forth in Section XXI (Covenants by Plaintiff).

13 XXIV. ACCESS TO INFORMATION

14
 15 97. Until ten (10) years after the Settling Defendants' receipt of EPA's notification
 16 pursuant to Paragraph 48 of Section XIV (Certification of Completion of the Work), Settling
 17 Defendants shall provide to EPA, upon request, copies of all documents and information in
 18 hardcopy or in electronic format or other format requested by EPA within their possession or
 19 control or that of their contractors or agents relating to activities at the Mouth of the Hylebos
 20 Waterway Problem Area or to the implementation of this Consent Decree, including, but not
 21 limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts,
 22 reports, sample traffic routing, correspondence, or other documents or information (printed or
 23 electronic) related to the Work. Notwithstanding the time frame provided in the preceding
 24 sentence, Settling Defendants shall, upon request, provide copies of all documents and

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1 information in hardcopy or in electronic format or other format requested by EPA within their
 2 possession or control or within the possession or control of their contractors, consultants or
 3 agents relating to long-term operation, maintenance and monitoring and other activities that may
 4 continue beyond Certification of Completion of the Remedial Action under this Consent Decree.
 5 Settling Defendants shall also make available to EPA, for purposes of investigation, information
 6 gathering, or testimony, their employees, agents, or representatives with knowledge of relevant
 7 facts concerning the performance of the Work.

8
 9 98. Business Confidential and Privileged Documents.

10 a. Settling Defendants may assert business confidentiality claims covering
 11 part or all of the documents or information submitted to Plaintiff under this Consent Decree to
 12 the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C.
 13 § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential
 14 by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of
 15 confidentiality accompanies documents or information when they are submitted to EPA, or if
 16 EPA has notified Settling Defendants that the documents or information are not confidential
 17 under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public
 18 may be given access to such documents or information without further notice to Settling
 19 Defendants.

20 b. The Settling Defendants may assert that certain documents, records and
 21 other information are privileged under the attorney-client privilege or any other privilege
 22 recognized by federal law. If the Settling Defendants assert such a privilege in lieu of providing
 23 documents, they shall provide the Plaintiff with the following: (1) the title of the document,
 24

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record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the privilege asserted by Settling Defendants. However, no documents, reports or other information created or generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged.

99. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Hylebos Waterway Problem Area.

XXV. RETENTION OF RECORDS

100. Until ten (10) years after the Settling Defendants' receipt of EPA's notification pursuant to Paragraph 48 of Section XIV (Certification of Completion of the Work), each Settling Defendant shall preserve and retain all non-identical copies of records and documents (including records and documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to its liability under CERCLA or the liability of any other person under CERCLA with respect to the Hylebos Waterway Problem Area. Each Settling Defendant must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above all non-identical copies of the last draft or final version of any documents or records (including documents or records in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work, provided, however, that each Settling Defendant (and its

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1 contractors and agents) must retain, in addition, copies of all data generated during the
 2 performance of the Work and not contained in the aforementioned documents required to be
 3 retained. Each of the above record retention requirements shall apply regardless of any
 4 corporate retention policy to the contrary.

5 101. At the conclusion of this document retention period, Settling Defendants shall
 6 notify the United States at least 90 days prior to the destruction of any such records or
 7 documents, and, upon request by the United States, Settling Defendants shall deliver any such
 8 records or documents to EPA. The Settling Defendants may assert that certain documents,
 9 records and other information are privileged under the attorney-client privilege or any other
 10 privilege recognized by federal law. If the Settling Defendants assert such a privilege, they shall
 11 provide the Plaintiffs with the following: (1) the title of the document, record, or information;
 12 (2) the date of the document, record, or information; (3) the name and title of the author of the
 13 document, record, or information; (4) the name and title of each addressee and recipient; (5) a
 14 description of the subject of the document, record, or information; and (6) the privilege asserted
 15 by Settling Defendants. However, no documents, reports or other information created or
 16 generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds
 17 that they are privileged.

18
 19 102. Each Settling Defendant hereby certifies individually that, to the best of its
 20 knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed
 21 or otherwise disposed of any records, documents or other information (other than identical
 22 copies) relating to its potential liability regarding the Hylebos Waterway Problem Area since
 23 notification of potential liability by the United States or the filing of suit against it regarding the
 24 Hylebos Waterway Problem Area and that it has fully complied with any and all EPA requests

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for information pursuant to Section 104(e) and 122(e) of CERCLA, 42 U.S.C. 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. 6927.

XXVI. NOTICES AND SUBMISSIONS

103. Whenever, under the terms of this Consent Decree, written notice is required to be given or a report or other document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. All notices and submissions shall be considered effective upon receipt, unless otherwise provided. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA and the Settling Defendants, respectively.

As to the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Re: DJ # _____

Chief, Environmental Defense Section
United States Department of Justice
Environment and Natural Resources Division
P.O. Box 23986
Washington D.C. 20026-3986
Re: DJ # _____

and

Director, Environmental Cleanup Office
United States Environmental Protection Agency
Region 10
ECL - 113
1200 Sixth Avenue

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1 Seattle, Washington 98101

2 As to EPA:

3 Jonathan Williams
4 EPA Project Coordinator
5 United States Environmental Protection Agency
6 Region 10
7 ECL - 111
8 1200 Sixth Avenue
9 Seattle, Washington 98101

10 As to the Regional Financial Management Officer:

11 Ruth Broome
12 Office of Management Programs
13 U.S. Environmental Protection Agency
14 OMP-146
15 1200 Sixth Avenue
16 Seattle, Washington 98101

17 As to the Settling Defendants:

18 Suzanne Dudziak
19 Port of Tacoma
20 P.O. Box 1837
21 Tacoma, Washington 98401-1837

22 Pioneer Americas LLC
23 c/o Sam Chamberlain
24 700 Louisiana, Suite 4300
25 Houston, Texas 77002

26 Occidental Chemical Corporation
27 Mariana Properties, Inc.
28 c/o F. Allen Meek, Jr.
Glenn Springs Holdings, Inc.
2480 Fortune Drive, Suite 300
Lexington, Kentucky 40509

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XXVII. EFFECTIVE DATE

104. The effective date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court, except as otherwise provided herein.

XXVIII. RETENTION OF JURISDICTION

105. This Court retains jurisdiction over both the subject matter of this Consent Decree and the Settling Defendants for the duration of the performance of the terms and provisions of this Consent Decree for the purpose of enabling any of the Parties to apply to the Court at any time for such further order, direction, and relief as may be necessary or appropriate for the construction or modification of this Consent Decree, or to effectuate or enforce compliance with its terms, or to resolve disputes in accordance with Section XIX (Dispute Resolution) hereof.

XXIX. APPENDICES

106. The following appendices are attached to and incorporated into this Consent Decree:

"Appendix A" is the SOW.

"Appendix B" is the map of the Hylebos Waterway Problem Area.

"Appendix C" is the map of the Mouth of the Hylebos Problem Area and the Occidental Site.

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1 XXX. COMMUNITY RELATIONS

2 107. Settling Defendants shall propose to EPA their participation in the community
3 relations plan developed by EPA. EPA will determine the participation role for the Settling
4 Defendants under the Plan. Settling Defendants shall also cooperate with EPA in providing
5 information regarding the Work to the public. As requested by EPA, Settling Defendants shall
6 participate in the preparation of such information for dissemination to the public and in public
7 meetings which may be held or sponsored by EPA to explain activities at or relating to the
8 Mouth of the Hylebos Problem Area.

9
10 XXXI. MODIFICATION

11 108. Schedules specified in this Consent Decree for completion of the Work may be
12 modified by agreement of EPA and the Settling Defendants. All such modifications shall be
13 made in writing.

14
15 109. Except as provided in Paragraph 12 ("Modification of the SOW or related Work
16 Plans"), no material modifications shall be made to the SOW without written notification to and
17 written approval of the United States, Settling Defendants, and the Court, if such modifications
18 fundamentally alter the basic features of the selected remedy within the meaning of 40 C.F.R.
19 300.435(c)(2)(B)(ii). Prior to providing its approval to any modification, the United States will
20 provide the State with a reasonable opportunity to review and comment on the proposed
21 modification. Modifications to the SOW that do not materially alter that document, or material
22 modifications to the SOW that do not fundamentally alter the basic features of the selected
23 remedy within the meaning of 40 C.F.R. 300.435(c)(2)(B)(ii), may be made by written
24 agreement between EPA and the Settling Defendants.

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110. Nothing in this Decree shall be deemed to alter the Court's power to enforce, supervise or approve modifications to this Consent Decree.

XXXII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

111. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) days for public notice and comment in accordance with Section 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate. Settling Defendants consent to the entry of this Consent Decree without further notice.

112. By executing this Consent Decree, and taking action under this Consent Decree, Settling Defendants do not intend to amend or alter any previously existing contractual agreement between or among any of the Settling Defendants. By executing this Consent Decree, and taking action under this Consent Decree, Settling Defendants and the United States do not intend to amend or alter any previously existing contractual agreement between or among any of the Settling Defendants and the United States other than the HCC AOC. Nothing in this Consent Decree is intended to alter the rights or obligations of the parties to the Cash-Out Consent Decree.

113. If for any reason the Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

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APPENDIX A

**STATEMENT OF WORK
FOR THE CONSENT DECREE
REMEDIAL DESIGN, REMEDIAL ACTION & LONG-TERM MONITORING**

**MOUTH OF HYLEBOS WATERWAY PROBLEM AREA:
SEGMENTS 3, 4 AND 5
AND PORTIONS OF SEGMENT 1**

**COMMENCEMENT BAY NEARSHORE/TIDEFLATS SUPERFUND SITE
TACOMA, WASHINGTON**

APPENDIX A

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Appendix A
Mouth of Hylebos Waterway SOW

I. PURPOSE

The purpose of this Statement of Work (SOW) is to set forth requirements for implementation of the remedial design and remedial action activities that the Settling Defendants are required to perform under the Consent Decree (CD) for Remedial Design and Remedial Action (RD/RA), addressing Segments 3, 4, and 5 and portions of Segment 1 of the Hylebos Waterway (herein collectively referred to as the “Mouth of Hylebos Waterway Problem Area,” further described below). This SOW also addresses all activities associated with the construction, filling, completion, operation, and maintenance of the Nearshore Confined Disposal (NCD) Facility located at the Port of Tacoma’s “Slip 1,” as well as the related habitat mitigation activities at the “Slip 5” and “Clear Creek” sites. This SOW does not address activities in and/or adjacent to Segment 5 of the Hylebos Waterway that are being performed under the Occidental Site Administrative Order on Consent (AOC) as amended January 2005. However, this SOW does address the placement and confinement of treated Area 5106 Sediment and other Occidental Site sediments in the NCD Facility.

This SOW is consistent with the Record of Decision (ROD), signed by the Regional Administrator of the United States Environmental Protection Agency (EPA), Region 10 on September 30, 1989, for the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund Site (the CB/NT Site), and the Explanation of Significant Difference (ESD) dated July 28, 1997 (1997 ESD) and a separate ESD dated August 3, 2000 (2000 ESD). The 2000 ESD specifies the cleanup plan, various performance criteria and the disposal sites for the Hylebos Waterway Problem Areas, among other CB/NT problem areas. The 1997 ESD modified the sediment cleanup standard for polychlorinated biphenyls (PCBs). This SOW is Appendix A to the above-referenced CD.

In addition to outlining the requirements for implementation of the remedial design and remedial action, this SOW provides a summary of all of the work previously completed under EPA oversight pursuant to the Unilateral Administrative Order for Remedial Design and Remedial Action issued to the Settling Defendants Port of Tacoma and Occidental Chemical Corporation (EPA Docket No. CERCLA 10-2002-0064), including references to documentation submitted by the Settling Defendants and approvals by EPA. All work completed by the Settling Defendants to date, is summarized in Section V of this SOW. All such work approved by EPA is incorporated into this SOW by this reference.

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The Mouth of Hylebos Waterway Problem Area, located within the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund site in Pierce County, Washington is shown on Figure 1. Using the delineation of the Hylebos Waterway segments developed during the Hylebos Cleanup Committee's pre-remedial design activities, Segment 5 includes the area within the Hylebos Waterway north of East Eleventh Street Bridge. Segments 3 and 4 are located south of East Eleventh Street Bridge and north of or adjacent to the former Murray Pacific facility, including SMA 302, as depicted in the 2000 ESD. Segment 1 of the Hylebos Waterway is depicted on Figure 1 and includes the Upper Turning Basin at the southernmost end of the waterway and portions of the neck of the waterway. This SOW includes only those portions of Segment 1 designated as Sediment Management Areas (SMA) 103 and 123.

In conducting the work specified in this SOW, the Settling Defendants shall follow:

- The 1989 ROD as modified by the 1997 and 2000 ESDs;
- Approved pre-remedial design deliverables;
- This SOW;
- Approved Remedial Design (RD) and Remedial Action (RA) Work Plans; and
- EPA Superfund Remedial Design and Remedial Action Guidance applicable to submitting deliverables for designing and implementing the remedial action at the Mouth of the Hylebos Waterway Problem Area of the CB/NT Site.

Disposal sites for contaminated sediments were identified in the 2000 ESD which provided the Settling Defendants with suitable locations for sediment waste disposal. The Settling Defendants have selected the Blair Waterway Slip 1 as the disposal site for Mouth of the Hylebos Waterway Problem Area, treated Area 5106 sediments, and other Occidental Site sediments requiring confined disposal, subject to meeting technical criteria for disposal at the Slip 1 NCD. The Settling Defendants will utilize the Puget Sound Dredge Disposal Analysis (PSDDA) open-water disposal site for dredged sediment that does not require confined disposal and meets the appropriate requirements of the PSDDA site, including acquisition of all necessary permits.

One objective of the Mouth of Hylebos Waterway Problem Area project was to maximize remedial action that could reasonably occur in the 2002-2003 in-water construction season. Therefore, the Settling Defendants initiated pier demolition in Slip 1 and Stage I construction of the NCD Facility containment berm in 2002-2003 (See Sections V and VI). Additionally, the

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Settling Defendants prepared an RD Work Plan which proposed an implementation strategy that identified additional remedial action elements to be accomplished in 2002. The RD Work Plan also presented a generalized construction schedule for the remainder of the project. All such activities that have been approved by EPA are incorporated into this SOW by this reference.

The purpose of this SOW is to describe work known to be necessary to achieve the CB/NT Site cleanup objectives, including the Sediment Quality Objectives (SQOs). If EPA determines at some future date that additional work is needed to achieve cleanup EPA shall amend this SOW consistent with the CD.

II. DESCRIPTION OF REMEDIAL ACTION

A. Key Elements of CB/NT ROD

The CB/NT ROD selected a remedy comprised of the following five (5) key elements to address contaminated sediments in the waterways of the CB/NT site:

1. Site use restrictions (now commonly referred to as institutional controls);
2. Source control;
3. Natural recovery;
4. Sediment remedial action (i.e., confinement); and
5. Monitoring.

Four (4) of the five (5) primary elements of the CB/NT ROD will be implemented under this SOW including site use restrictions, natural recovery (including the potential for active sediment remediation if natural recovery does not occur as required), sediment remedial action (including habitat mitigation), and monitoring. Source control of ongoing sources of hazardous substances to the Hylebos Waterway problem areas is not an anticipated element of this SOW. The Washington State Department of Ecology (Ecology) has been designated as the lead agency for upland source control at the CB/NT Site. Ecology issued its Milestone 5 report, the final administrative milestone for source control, documenting completion of activities for Hylebos Waterway on June 14, 2000 (Ecology 2000). Since then, EPA and Ecology have determined that the Milestone 5 report mistakenly assumed that all sources of contamination at the Occidental Site were adequately characterized and contained. Additional Occidental Site characterization, remedial alternatives analyses, and integrated (upland/sediment) remedial design are covered

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under a separate AOC amendment of January 2005. The defendants accept Ecology's (2000) determination that source control is substantively complete and effective in preventing future sediment contamination. This SOW anticipates that remedial design and remedial action will not need to be accompanied by further upland source control actions. If additional source control actions are needed to conduct or protect RD/RA, EPA may amend this SOW accordingly. Monitoring will be implemented under this SOW (Task VI) to assist EPA and Ecology in verifying source control effectiveness. As necessary, monitoring may include ground water and subsurface sediments that have a significant potential to contaminate the biologically active zone. Specific monitoring requirements will be set forth in the Operations, Maintenance, and Monitoring Plan (OMMP) described in Task 6 of Section V of this SOW.

B. Cleanup Objectives

The cleanup objectives for the remedial action, as described in Section 10 of the 1989 ROD, state, "the selected remedy is to achieve acceptable sediment quality in a reasonable time frame" (CB/NT ROD, p. 97). Habitat function and enhancement of fisheries resources are also project cleanup objectives.

1. Acceptable Sediment Quality in a Reasonable Time Frame

"Acceptable sediment quality" is defined as "the absence of acute or chronic adverse effects on biological resources or significant human health risk" (CB/NT ROD, p.62). The ROD designated biological test requirements and associated sediment chemical concentrations referred to as sediment quality objectives (SQOs) to attain cleanup objectives for the CB/NT Site. The SQO for polychlorinated biphenyls (PCBs) was subsequently updated in a 1997 ESD.

SQOs and satisfactory biological toxicity test results are performance standards for the CB/NT site. SQOs for individual chemicals specified in the ROD, as amended in the 1997 ESD, are provided in Table 1 of this SOW. In addition to comparing sediment concentrations with SQOs, the Settling Defendants may elect, with EPA approval, to perform appropriate biological toxicity tests for all chemicals except PCBs to demonstrate the absence of biological effects predicted by the SQOs. Toxicity testing may also be used to assess the suitability of sediments for open-water disposal when chemical data predict that biological effects might be present. Typical biological test criteria are provided in Table 1 to this SOW.

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A “reasonable time frame” incorporates the ROD’s selection of natural recovery for sediments in the CB/NT site that are minimally contaminated and are predicted to naturally recover within 10 years from implementation of the remedial action in any given SMA. The Pre-Remedial Design Evaluation (PRDE) Report identified a number of different potential natural recovery areas, including areas within the Mouth of Hylebos Waterway Problem Area. However, since these identified natural recovery areas overlap with subsurface chemistry, the Settling Defendants may address some or all of these areas through active remediation rather than rely on natural recovery and long-term monitoring. Performance monitoring of natural recovery areas is a requirement of this SOW and is discussed in more detail in Section III below.

Except for natural recovery areas, the time frame for achieving SQOs or satisfactory biological toxicity test results shall be the end of construction of individual elements of the remedial action, as detailed in the Construction Quality Assurance Plan(s) (CQAP) and OMMP(s), as appropriate, to be approved by EPA under this SOW. Determining whether the sediment quality cleanup objectives have been achieved will be verified through a comparison of post-remedial sediment chemistry with SQOs at discrete locations and/or through the results of biological testing. In addition, cleanup objectives will be verified with a statistical comparison of performance monitoring data with SQOs, surrounding surface chemistry, and Sediment Remedial Action Levels (SRALs). The sediment quality monitoring and decision framework will be detailed in the OMMP(s).

2. Habitat Function and Enhancement of Fisheries Resources

Habitat function and enhancement of fisheries resources have also been incorporated as part of the overall project cleanup objectives. For example, the physical characteristics and placement of material used for capping contaminated sediments in the marine environment will be required to provide a suitable substrate and habitat for aquatic organisms that may utilize that environment.

Consideration of habitat function and enhancement of fisheries resources is required under this SOW to meet cleanup objectives and comply with ARARs, including the Clean Water Act, Endangered Species Act, and the Puyallup Tribe of Indians Settlement Act of 1989. Remedial designs and actions will be performed consistent with biological assessments and biological opinions.

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C. Mouth of Hylebos Waterway Problem Area

The 1989 ROD and 2000 ESD specified confinement as a primary component of the sediment cleanup remedy, and identified in-place capping and nearshore disposal as practicable options for portions of the Hylebos Waterway cleanup, including the Mouth of Hylebos Waterway Problem Area. In-place capping, which involves physical containment and chemical isolation of contaminated sediment by placing clean material on top of existing substrate, will be used to remediate nearshore embankment areas in the areas where removal is not practicable. Nearshore disposal involves removal (i.e., dredging) of sediment followed by confined disposal in the nearshore environment. Dredging will occur largely within open access areas of the waterway. Dredged sediment not suitable for open-water disposal or beneficial reuse will be confined in the Blair Waterway Slip 1 nearshore confined disposal facility (the “NCD Facility”).

Approximately 36,000 cubic yards of sediment within Area 5106 depicted on Figure 3, has been dredged and treated pursuant to a separate consent decree prior to placement and confinement in the NCD Facility. However, this SOW requires coordination with the Area 5106 Project and other aspects of the remaining Occidental Site remediation as it relates to placement and confinement of treated and untreated Occidental Site sediments in the Slip 1 NCD Facility, subject to meeting technical criteria for disposal at the Slip 1 NCD. The SMAs shown in Figures 2 and 3, and described in more detail in subsequent sections of this SOW, represent the cleanup plan of the 2000 ESD, which is subject to remedial design as approved by EPA and remedial action under EPA oversight under this SOW.

1. PSDDA Testing and Disposal

EPA’s 2000 ESD encouraged open-water disposal at the PSDDA site or beneficial reuse of qualifying sediment. Sediments determined to be suitable for PSDDA disposal or beneficial reuse will be managed under existing authorities of the Puget Sound Dredge Material Management Program (DMMP).

In 2000, the Settling Defendants performed PSDDA testing of dredged material management units (DMMUs) in various areas of the Mouth of Hylebos Waterway Problem Area, under the supervision of the DMMP. Results of the PSDDA sampling and analysis, including confirmatory biological testing, are provided in the Hylebos Waterway Phase I PSDDA Suitability Report (Anchor 2000), approved by the DMMP in 2001. Suitability determinations

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are summarized on Figure 3. Those DMMUs that comply with PSDDA open-water disposal or beneficial reuse criteria have been or will be managed through the DMMP and disposed of at an open-water disposal site permitted by the DMMP agencies. However, all design and dredging of material suitable for open-water disposal will be reviewed and approved by EPA as part of this SOW. This is being done to accomplish a complete cleanup of the Mouth of Hylebos Waterway Problem Area, and to ensure that only those sediments requiring confined disposal are contained in the NCD Facility. Activities that have been approved by EPA are incorporated into this SOW by this reference.

2. Blair Slip 1 Nearshore Confined Disposal Facility (“NCD Facility”)

The Blair Slip 1 NCD Facility will be used as the disposal site for dredged material removed from the Mouth of Hylebos Waterway Problem Area, including the Occidental Site, that requires confinement, as well as for material to be addressed by Settling Defendants and/or other parties from other locations, subject to meeting technical criteria for disposal at the Slip 1 NCD. Consistent with the 2000 ESD, the design of the NCD Facility includes the following elements:

- a) Demolition of structures adjacent to and within Slip 1.
- b) Construction of a berm across the face of Slip 1.
- c) Placement and confinement in the NCD Facility of dredged material removed from the Hylebos Waterway Problem Area requiring confined disposal, as well as placement and confinement of material to be addressed by Settling Defendants and/or other parties from other locations, as designated by the Settling Defendants and as approved by EPA. Such material will include approximately 36,000 cubic yards (cy) of treated sediment from Area 5106 placed by Occidental Chemical Corporation, approximately 100,000 cy of dredged material from the Middle Waterway placed by the Middle Waterway Action Committee (MWAC), approximately 10,000 cy placed by Manke Lumber from the Head of the Hylebos Waterway, and may include other material. Additional material from areas outside of the CB/NT Site may be placed and confined in the NCD Facility subject to receipt by the Settling Defendants of all necessary government approvals. However, placement of non-CB/NT material must be compatible with timely completion of the Hylebos Waterway cleanup. Material requiring confined disposal shall be placed at or below elevation +9 feet mean lower low water (MLLW) where it will remain in a saturated state.

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- d) Placement of a cap from the top of the confined material to the ground surface, which will include an impervious cover (asphalt concrete pavement) to provide water quality protection.
- d) The NCD Facility will be designed, at a minimum, to accommodate all material dredged under this SOW from the Mouth of Hylebos Waterway Problem Area (other than dredged material approved for PSDDA disposal). The NCD Facility will also be designed to include the material from other sources including treated and untreated sediment from Area 5106, other Occidental Site sediments, Middle Waterway sediment, and Manke Lumber sediment, as agreed to between Occidental Chemical Corporation, the Port of Tacoma, and the other pertinent parties.

At the time of this writing, structures adjacent to and within Slip 1 have been demolished and the Slip 1 NCD Facility containment berm has been constructed to elevation 14 feet (MLLW) in two separate stages of construction, timed to allow strength gain of the underlying soft foundation soils. In accordance with the requirements outlined in Task 3 of Section IV of this SOW, the Settling Defendants submitted an RA Work Plan for the structure demolition in Slip 1 on July 1, 2002, which received EPA approval on July 23, 2002. The Settling Defendants also submitted an RA Work Plan for the Stage I Berm construction on August 30, 2002, which was approved by EPA on September 20, 2002. In addition, the Settling Defendants submitted an RA Work Plan for Stage II berm construction as part of the Segment 5 cleanup on June 20, 2003, which was conditionally approved by EPA on August 8, 2003. Activities that were approved by EPA are incorporated into this SOW by this reference.

Following placement of dredged material from Segments 3 and 4 of the Mouth of Hylebos Waterway Problem Area and placement of any other material approved for placement and confinement, the containment berm will be completed to its final elevation of 18 feet (MLLW) and the entire Slip 1 NCD Facility will be capped.

3. Mouth of Hylebos Waterway Problem Area Open Access Dredge Areas

Previous investigations and preliminary engineering evaluations of the Mouth of Hylebos Waterway Problem Area are documented in the Hylebos Waterway Pre-Remedial Design Evaluation Report (PRDE Report), approved by EPA in November 1999. Consistent with the PRDE Report and the 2000 ESD, sediment requiring confined disposal shall be dredged and

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disposed of in the Slip 1 NCD Facility. Areas to be dredged are shown on Figures 2 and 3. Wherever practicable, sediment will be dredged to below the native sediment interface. Performance monitoring will be undertaken, and additional dredging completed as necessary, to ensure removal of sediment exceeding applicable SQOs. Dredging and performance monitoring requirements are described in Section III.B below, and shall be detailed in the CQAP(s) and OMMP(s), as appropriate.

4. Embankment Cleanups

The embankment areas to be addressed in the Mouth of Hylebos Waterway Problem Area under this SOW include:

- a) The Port Industrial Yard (SMA 531)
- b) Parcel 4 (SMA 541)
- c) City of Tacoma (SMA 402)
- d) Taylor Way Properties (SMA 431)
- e) Buffelen (SMA 341)
- f) Murray Pacific (SMA 342)
- g) Sound Refining (SMA 432)
- h) Port of Tacoma (formerly Wasser Winters) Embankment (SMA 103)
- i) Puyallup Tribe (SMA 123)

The Settling Defendants shall perform the embankment cleanup actions required under this SOW to ensure that performance standards are achieved for these areas of the Hylebos Waterway. To the extent that individual property owners request design elements not covered by this SOW, the time lines and coordination for the embankment cleanup with respect to items outside the scope of this SOW shall be identified in the RA Work Plans (see Section IV, Task 3). These coordination activities will also be addressed in separate deliverables to EPA as necessary to ensure the sediment remedial action is conducted in compliance with this SOW and the remedial action schedule. The SMAs subject to the terms of the consent decree entered in U.S. v. Mary Jane Anderson, et al, Civil Action Number C03-5107 (W.D. WA 2003) will be addressed consistent with those terms.

The appropriate remedial action (capping or dredging or natural recovery) for the embankment

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actions described above will be evaluated in the remedial design deliverables submitted under this SOW.

5. Natural Recovery Areas

Natural recovery has been selected for specific portions of the Hylebos Waterway as an acceptable remediation approach at locations where sediments are marginally contaminated, are likely to recover to SQOs within the ten (10) year time frame specified in the ROD, and are located in areas with a low potential for future exposure of subsurface contamination. At the CB/NT Site, EPA considers marginally contaminated sediments as those with chemical concentrations less than the second lowest Apparent Effects Threshold (AET) value (the SQO is set at the lowest AET) or biological test results that do not exceed the minimum cleanup level (MCUL) values under Washington State Sediment Management Standards (SMS). Numeric AET chemical concentration values are those specified in the 1989 ROD, while biological MCUL criteria are those specified in SMS regulations. Where PCBs are present, marginally contaminated sediments are those with PCB concentrations below 450 parts per billion (ppb) as identified in the 2000 ESD.

The PRDE Report predicted that the Chinook Marina in Segment 5 would naturally recover within the 10 years following active remediation of the adjacent waterway. The Settling Defendants will monitor this area to verify compliance with performance monitoring criteria summarized in Table 1 (including optional biological monitoring; see Table 1). If future monitoring data indicate that natural recovery will not or does not occur within the next 10 years, the need for enhanced natural recovery and/or active sediment remediation will be reassessed with EPA, consistent with the 2000 ESD. The scope of long-term monitoring and appropriate response actions will be established in the overall Mouth of Hylebos OMMP.

The PRDE Report also predicted that several areas within Segment 3 and 4 would naturally recover within the 10 years following active remediation of the adjacent waterway. Performance monitoring will be performed to verify compliance with criteria summarized in Table 1 (including optional biological monitoring; see Table 1). If future monitoring data indicate that natural recovery will not or does not occur within 10 years, the need for enhanced natural recovery and/or active sediment remediation will be reassessed by the Settling Defendants and EPA, consistent with the 2000 ESD. The scope of long-term monitoring and appropriate response

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actions will be established in the overall Mouth of Hylebos OMMP

As part of the remedial design, the Settling Defendants may choose to address natural recovery areas through active remediation rather than rely on natural recovery and the long-term monitoring performance monitoring required with natural recovery.

D. Coordination with the Occidental Site AOC

EPA and Occidental previously identified two non-time critical removal actions related to the former Occidental facility located at the Mouth of Hylebos Waterway Problem Area—Area 5106 and the Embankment Area. Engineering Evaluation/Cost Analysis (EE/CA) documents were prepared under a separate Administrative Order on Consent (AOC) No. 10-97-0011-CERCLA, and most of the Area 5106 Removal Action was completed. Information obtained since 2003 led Occidental, EPA and Ecology to determine that remaining sediment, ground water, and soil contamination at the Occidental Site should be characterized and remediated in an integrated manner which meets the requirements of both agencies. These actions are now the subject of the Occidental Site AOC as amended January 2005. Under this SOW, coordination with the Occidental Site amended AOC is required.

III. PERFORMANCE STANDARDS

Settling Defendants shall adhere to the following performance standards for the design and implementation of the Mouth of Hylebos Waterway Problem Area Remedial Design/Remedial Action (RD/RA). These performance standards, as stated in the 2000 ESD or elsewhere, are consistent with the cleanup objectives and are necessary to ensure that the remedy is protective of human health and the environment, and complies with Applicable or Relevant and Appropriate Requirements (ARARs). Performance standards shall include cleanup standards, standards of control, quality criteria, and other substantive requirements, criteria, or limitations including all ARARs set forth in the 1989 ROD, 1997 and 2000 ESDs, this SOW, and/or CD, and approved deliverables under this SOW. The Settling Defendants shall address these performance standards in remedial design and shall identify additional performance standards and methods necessary to successfully implement the remedial action, including performance standards to monitor the long-term effectiveness of the remedial action and mitigation areas.

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A. Cap Requirements

One of the remedial actions selected in the 1989 ROD and included in the preliminary cleanup plans for the Hylebos Waterway is capping. The Settling Defendants shall follow EPA guidance, “Guidance for *In-situ* Subaqueous Capping of Contaminated Sediments” (September 1998, Reference EPA 905-B6-004) for the design and construction of capped areas.

In the remedial design, the Settling Defendants shall evaluate each embankment SMA on a property-by-property basis to identify a final design for capping or dredging or natural recovery. For each property, the Settling Defendants’ basis for design shall address the following factors:

- protectiveness of the proposed cap,
- compatibility with current and anticipated future land use,
- property owner’s willingness to implement use restrictions on the capped area and/or ensure such restrictions will run with the land,
- engineering constraints, and
- avoidance and/or minimization of habitat impacts and identification of appropriate mitigation under CWA Section 404, and compliance with Endangered Species Act measures that may be identified.

The SMAs subject to the terms of the consent decree entered in U.S. v. Mary Jane Anderson, et al., Civil Action Number C03-5107 (W.D. WA 2003) will be addressed consistent with those terms.

EPA intends to maintain the integrity and effectiveness of any capped area over contaminated sediments through requirements for construction, long-term monitoring, and maintenance, including the following:

1. Caps will have a minimum thickness of three (3) feet unless an alternative thickness is demonstrated to be consistent with “Guidance for *In-situ* Subaqueous Capping of Contaminated Sediments,” and/or otherwise approved by EPA. Caps will be constructed to address adverse impacts through four primary functions:
 - a. Physical isolation of the contaminated sediment from the ecological receptors;

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- b. Complete confinement and stabilization of contaminated sediments, preventing resuspension and transport to other locations within the waterway;
 - c. Reduction of chemicals transported through the groundwater pathway to levels that will not impact surface sediments (defined as the “biologically active zone” where most sediment-dwelling organisms live) above the SQOs, and will not impact surface water at levels exceeding background concentrations or marine chronic water quality criteria identified in Table 2;
 - d. Provide a cap surface that promotes colonization by aquatic organisms, unless it is demonstrated not to be practicable.
2. Long-term monitoring of the cap may include visual inspection, bathymetric survey, sediment deposition monitoring, chemical monitoring, and biological monitoring. The monitoring requirements will be specified in the OMMP(s).

The Settling Defendants shall demonstrate that all capped areas are completed in accordance with these performance standards. The methods for achieving the objectives for the capped areas shall be set forth in the Design Report(s). Verification of performance standards shall be documented in the CQAP(s) and the OMMP(s), as appropriate. As-builts shall be provided for each capped SMA in the Remedial Action Construction Report (see Section IV, Task 4).

B. Dredging and Confined Disposal

Performance standards for dredging and placement in the NCD Facility shall be consistent with the CB/NT ROD and ARARs including the Clean Water Act, Rivers and Harbors Act, and Endangered Species Act requirements. Under this SOW, the Mouth of Hylebos Waterway Problem Area, including the NCD Facility will be subject to construction quality assurance and long-term monitoring to ensure that the selected remedy remains protective, and that applicable water quality standards are not exceeded beyond the surface water mixing zone identified for in-water activities (e.g., capping, dredging, and placement in the NCD Facility) and outside of the NCD Facility during and after construction. Ground water discharging from Slip 1 shall not exceed concentrations which can be expected to contaminate sediment above an SQO. Section 401 of the Clean Water Act requires that both dredging and dredged material placement (including dewatering) operations shall not violate applicable effluent or water quality standards. EPA, working with Ecology, will be responsible for certifying during remedial design that such

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operations will comply with this requirement. This determination allows for the designation of mixing zones within which standards may be exceeded, but beyond which applicable standards must be met. While dredging and placement operations conducted as part of a remedial action within a CB/NT problem area do not require a formal Section 401 water quality certification from Ecology, these operations must comply with the substantive requirements of such certification, including specified monitoring and reporting requirements identified by EPA.

The mixing zone utilized during other dredging actions and placement in the NCD Facility (including temporary discharge of dewatering fluids as appropriate), will require a water-quality certification from EPA. The Settling Defendants shall submit water quality monitoring plans as part of the CQAP(s) required under this SOW.

The Settling Defendants shall design and implement the dredging of designated SMAs necessary to achieve SQO cleanup levels in those areas EPA has determined will not naturally recover within 10 years. Wherever practicable, sediment will be dredged to below the native sediment interface. Performance monitoring will be undertaken, and additional dredging completed as necessary, as detailed in the OMMP(s) to be approved by EPA. The need for additional dredging will be determined based on a comparison of post-remedial action sediment chemistry with SQOs, and/or the results of biological testing. In addition, the need for additional dredging may be based on a statistical comparison of performance monitoring data with SQOs, surrounding surface chemistry, and SRALs. The sediment quality monitoring and decision framework for long-term effectiveness will be detailed in the OMMP(s).

Contaminated sediment shall be dredged and placed in the NCD Facility. As-built drawings of all dredged surfaces shall be provided to EPA in the Remedial Action Construction Report (see Section IV, Task 4). The Settling Defendants shall document to EPA quantities (in-place volumes), and placement location (the NCD Facility) for each SMA dredged from the Mouth of Hylebos Waterway Problem Area.

The methods for achieving the objectives for dredged areas and the Slip 1 NCD Facility addressed under this SOW shall be set forth in the Design Report(s), the CQAP(s) and the OMMP(s), as appropriate. Verification that performance standards, including SQOs and/or results of biological testing, have been achieved shall be documented in the Pre-Final Inspection Report, Final Inspection Report, and/or the Remedial Action Completion Report, as appropriate.

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C. Natural Recovery

For those areas selected for natural recovery, the Settling Defendants shall perform/prepare the following:

- Monitoring plans,
- Identify triggers for initiating additional response actions if the monitoring indicates natural recovery will not succeed in the ten (10) year time frame, and
- Specify additional response actions for active remediation if monitoring indicates natural recovery will not occur by year ten (10).

These elements shall be primarily addressed in the OMMP(s) for the Site and other deliverables, as appropriate. Natural recovery monitoring will be performed until cleanup objectives have been achieved.

D. Subsurface Contamination

The plan for dredging SMAs in the Mouth of Hylebos Waterway Problem Area included in this SOW (Figures 2 and 3) includes all areas of subsurface contamination that EPA determined had a high to moderate potential for future exposure. Contaminated subsurface sediments that EPA determined had a low potential for exposure will require long-term monitoring under this SOW. Because exposure of contaminated subsurface sediments may occur during the cleanup by dredging adjacent areas, the Settling Defendants shall, under this SOW, prepare a final remedial design and implement the remedial action to ensure that contaminated subsurface sediment is not exposed and that SQOs are achieved at the face of every dredge cut (consistent with approved OMMPs). Where EPA determines it is not practicable to achieve SQOs at the face of a dredge cut, Enhanced Natural Recovery or alternatives other than dredging may be proposed by the Settling Defendants.

Because exposure of contaminated subsurface sediments may occur after construction of the remedial action through physical processes, such as storms or ship scour, or through future dredging or excavation, under this SOW, the Settling Defendants shall conduct long-term monitoring in these areas as set forth in an approved OMMP. This element of long-term monitoring shall be designed, in part, to detect recontamination from buried subsurface

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contamination.

Ground water flowing through subsurface source material can potentially result in pore water or sediment contamination within the biologically active zone. If needed, monitoring may be conducted as set forth in the OMMP, to assess the degree of chemical isolation provided by overlying sediment

Conservation Measures and Mitigation

The Settling Defendants shall take all appropriate measures during remedial design, construction, and site maintenance to avoid and minimize adverse impacts to the aquatic environment resulting from implementation of the remedial action. As set forth in the CB/NT Biological Assessment (BA) prepared by EPA, and in the 2000 ESD, a range of conservation measures are required by EPA to ensure that critical habitat for listed species is protected by the remedial action.

Conservation measures for work in the Mouth of Hylebos Waterway Problem Area include:

- Design of capping actions to avoid conversion of aquatic habitat to upland in the Mouth of Hylebos Waterway Problem Area, or inclusion of compensatory mitigation measures if conversion is unavoidable;
- Design of dredging and capping actions to avoid conversion of intertidal habitat to subtidal habitat in the Mouth of Hylebos Waterway Problem Area, or inclusion of compensatory mitigation measures if conversion is unavoidable;
- Timing restrictions for in-water work to avoid fish-critical activity periods, such that no in-water work will occur during designated fish windows.
- Substantive compliance with water quality standards as specified in a water quality certification to be issued by EPA;
- Addition of select substrates (fish mix) as part of capping to assist in providing suitable habitat for prey items of juvenile salmonids; and
- Incorporation of specific measures (e.g., Best Management Practices) into the design, to reduce the potential for construction-related impacts to listed species or their habitats. Specific design measures will be reviewed and approved by EPA.

Additional Conservation Measures and Project specific compensatory mitigation were later added during Endangered Species Act Consultation and were presented to EPA in the BA

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Addendum Prepared by Grette Associates (February 2003). Conservation measures are described in the BA Addendum.

Section 404 of the Clean Water Act requires compensatory mitigation for unavoidable loss of wetlands and aquatic habitat. Consistent with EPA's August 2000 ESD, habitat mitigation for the Project is consistent with the criteria and findings of the Commencement Bay Aquatic Ecosystem Assessment (Simenstad 2000). The overall goal of the compensatory mitigation is to contribute toward the recovery of ESA-listed species, consistent with the conservation measures in the BA and the August 2000 ESD performance standards for mitigation.

Compensatory mitigation for the Project was negotiated with EPA and was primarily associated with the loss of aquatic habitat in Slip 1. Construction of the Slip 1 NCD Facility will convert 2.62 acres of littoral habitat to uplands. To compensate for this unavoidable loss of habitat, littoral habitat is being provided at the Slip 5 mitigation site. Slip 5 Mitigation Site construction includes placement of select material and clean sandy dredged material to create an embayment, which is protected by a rocky reef on the outer edge. Activities in Slip 5 also include the extension of the Pier 1D Beach and placement of select substrate and large woody debris. In total, the mitigation action in Slip 5 converts 6.12 acres of subtidal habitat to littoral habitat. An additional 0.97 acre of existing littoral habitat within Slip 5 will be improved through changes in Slope and substrate. In total, the mitigation will yield increases in acreage and quality of littoral habitat and provide habitats that partly offset past cumulative impacts in the bay.

As an additional mitigation action for the Project, the Settling Defendants will construct a habitat improvement project adjacent to the existing Clear Creek Habitat Improvement Project. The proposed Clear Creek Habitat Improvement Project – Phase II involves converting existing upland and reed canary grass wetland into mudflat and tidal channels with abundant edge habitat. The Clear Creek Habitat Improvement Project – Phase II will provide a minimum of 2 acres of new habitat that is affected by tidal fluctuation and consisting of tidal channels separated by mudflat and/or emergent wetlands. As with the Slip 5 Mitigation Site, the Clear Creek Habitat Improvement Project Phase II is designed to be consistent with the criteria and findings of the ESD (EPA 2000) and the Commencement Bay Aquatic Ecosystem Assessment (Simenstad 2000).

IV. WORK TO BE PERFORMED BY SETTLING DEFENDANTS

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To accomplish the work under the SOW, the remedial design/remedial action shall consist of the six (6) tasks summarized below. The Settling Defendants shall be responsible for implementing additional work elements necessary for successful implementation of the Mouth of Hylebos Waterway Problem Area remedial action. All plans are subject to EPA approval. To date, several of these tasks have been completed by the Settling Defendants, as described in Section V and summarized in tabular format in Section VI, RD/RA Schedule of Deliverables and Milestones.

Task 1: Remedial Design Work Plan

Task 2: Remedial Design

- A. Preliminary (30%) Design Deliverable (Segments 3 and 4 only)
- B. Draft (90%) Design
- C. Final (100%) Design

Task 3: Remedial Action Work Plan

Task 4: Remedial Action Construction and Documentation

- A. Award Construction
- B. Notification of RA Start
- C. Preconstruction Inspection/Meeting
- D. Initiate Construction
- E. RA Progress Meetings
- F. Pre-final Construction Inspection
- G. Final Construction Inspection
- H. Reports
 - Remedial Action Construction Report
 - Final Remedial Action Report

Task 5: Performance Monitoring and Construction Quality Assurance

Task 6: Long-term Operation, Maintenance & Monitoring

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In an effort to initiate remedial action as quickly as possible, the Settling Defendants have submitted separate design deliverables for discrete elements of the remedial action as indicated in Task 2 below. Section V of this SOW discusses the status of the various deliverables and Section VI discusses the schedule for submission of the deliverables.

Additional details on each task are provided below. Documentation for each of the six tasks listed above has been/will be submitted to EPA for review and approval. As has been done for all deliverables to date, a draft version of each future document shall be submitted to EPA for review and comment unless otherwise agreed by EPA and the Settling Defendants. Subject to and in accordance with Section XI of the CD, upon receipt of EPA's comments on a draft document, the Settling Defendants shall submit to EPA a revised final document that incorporates EPA's modifications or summarizes and addresses EPA's concerns. All deliverables submitted in response to EPA's comments shall include a transmittal that responds directly to each comment, and identifies how the comment was addressed in the deliverable. This SOW also specifies submittal of certain documentation (e.g., construction progress reports, monthly progress reports) that will be used by EPA for informational purposes only but will not be formally approved by EPA.

Task 1: Remedial Design Work Plan

The Settling Defendants shall submit a Remedial Design Work Plan to EPA for review and approval in accordance with Section IX.A. of the UAO and Section VI (Schedule of Milestones and Deliverables) of this SOW. The RD Work Plan shall summarize the overall management strategy for performing the design (including additional data needs), construction, operation, maintenance, and monitoring of remedial actions. The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation and shall include a description of qualifications of key personnel directing the remedial design, including contracting personnel. Contact information (address, phone number, and e-mail addresses) and general responsibilities for key personnel shall be provided. The RD Work Plan shall also contain a schedule of remedial design activities.

In addition to describing the overall management strategy and identifying additional data needs as described above, the Settling Defendants shall make all reasonable efforts to communicate to the public and business community and coordinate work under this SOW to minimize disruption of

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normal use of the Hylebos Waterway and adjacent project areas. In the RD Work Plan, Settling Defendants shall address scheduling and coordination of work under this SOW with other in-water work or navigation near the project area that may occur. The Settling Defendants shall also initiate early discussions and coordination with property owners within the project area to determine if cleanup actions could potentially be efficiently integrated into a single combined action.

Task 2: Remedial Design

The remedial design is generally defined as those activities to be undertaken to develop the final plans and specifications, general provisions, special requirements, and all other technical and procurement documentation necessary to fully implement the remedial action as described in the CB/NT ROD and this SOW. The Settling Defendants shall prepare construction plans and specifications to implement the remedial actions within the Mouth of Hylebos Waterway Problem Area as described in the ROD and in accordance with the schedule set forth in Section VI of this SOW. As approved by EPA, the Settling Defendants have divided the remedial design into five separate major design elements including the Slip 5 Habitat Construction, Clear Creek Habitat Improvement, Hylebos Waterway Segment 5, Hylebos Waterway Segments 3 and 4, and Pier 25 Embankment. Therefore, five separate sets of design submittals reflecting the five design elements of remedial action have been or will be submitted to EPA for review and approval. All remedial design work, including plans and specifications, shall be developed in accordance with EPA's Superfund Remedial Design and Remedial Action Guidance (OSWER Directive No. 9355.0-4A) and shall demonstrate that the remedial action shall meet all objectives of the ROD, CD, and this SOW, including all performance standards. The Settling Defendants shall meet regularly with EPA to discuss design issues. The following sections provide details on the required remedial design deliverables as well as a summary of the status of the various submittals at the time of this writing (See Sections V and VI).

A. Preliminary (30%) Design for Segments 3 and 4

The Settling Defendants shall submit the Draft Segment 3 and 4 Preliminary (30%) Design Deliverable for discrete elements of Segments 3 and 4 described above, in accordance with the CD and Section VI (RD/RA Schedule of Deliverables & Milestones) of this SOW. The Draft Segments 3 and 4 Preliminary Design Deliverable will present, for EPA review and approval, the

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results of remedial design sampling and analysis, and a preliminary dredge plan for identified SMAs within Segments 3 and 4, as set forth in the August 2000 ESD.

The Preliminary (30%) Design for Segments 3 and 4 was submitted to EPA in May 2003, as described in Section V of this SOW.

B. Draft Final (90%) Design

Within sixty (60) days after receipt of EPA's comments on the Preliminary (30%) Design, the Settling Defendants shall submit the Draft Final Design Report that is approximately ninety (90) percent complete, unless otherwise approved by EPA.

The following design elements will be discrete Draft Final (90%) Design deliverables that are each subject to the schedule for submission requirements identified in Section VI of this SOW:

- Hylebos Segment 5 Cleanup/Slip 1 NCD Facility
- Hylebos Segments 3 and 4 Cleanup
- Pier 25 Embankment

The Draft Design submittals shall include or discuss, at a minimum, the following:

1. **Summary of pre-design field sampling and analysis results.** This shall include both previously approved EPA data/interpretations and new data presented for EPA approval;
2. **Basis for Design Report.** The Basis for Design Report (Design Analysis Report ["DAR"]) shall include a discussion of detailed design assumptions, parameters, design restrictions and objectives, for the following:
 - a. General Elements— description of analyses; technical parameters used; supporting calculations; required coordination and permits; and preliminary construction schedules.
 - b. Capping Elements – material types and testing procedures; compliance with

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performance standards outlined in Section III of this SOW; habitat considerations; and construction techniques.

- c. Dredging Elements: – dredging, handling, transport, and disposal methods; dredge prism and overcut allowances; and performance standards outlined in Section III of this SOW.
 - d. Cost Estimate – refined Pre-Remedial Design estimate to reflect the detail presented in the Draft Design.
 - e. Project Schedule – schedule for design, construction, and implementation of the remedial action that identifies timing for initiation and completion of all critical path tasks. The schedule shall include construction sequencing between this SOW (Mouth of Hylebos Waterway Problem Area) and remedial action completed by others (e.g. Occidental Site amended AOC, MWAC placement of dredged material, Manke placement of dredged material).
3. **Plans and Specifications.** A complete set of plans and specifications defining the detailed design shall be included with the Draft (90%) Final Design submittal;;
4. **Draft CQAP.** The Draft Final (90 %) CQAP shall include a summary of roles and responsibilities, proposed inspection and verification activities, contractor qualification requirements, water quality monitoring requirements (described below), documentation, and reporting. In addition, the CQAP shall summarize the various construction elements, associated potential problems, and proposed quality control/quality assurance procedures to ensure the elements are constructed in accordance with the approved design. See Section IV, Task 5 of this SOW for additional details regarding the CQAP.
- a. Water Quality Monitoring Plan. The Water Quality Monitoring Plan shall be in accordance with the Water Quality Certification issued by EPA for the project. The plan will include the following minimum elements: monitoring

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schedule, sampling locations, intervals, parameters, analytical methods, key contacts, reporting requirements (including daily reports), daily contacts for notifications of all exceedances, result summaries, and draft and final reports.

5. **Addendum to Biological Assessment.** The Settling Defendants shall submit an addendum to EPA's "Biological Assessment, Commencement Bay/Nearshore Tideflats Superfund Site," July 2000, addressing the performance standards in Section III.E. of this SOW, evaluating the following:
 - a. Impacts to filling Blair Slip 1. The Settling Defendants may submit to EPA the September 2001 BA that was submitted to the Corps to avoid redundant work effort. Appropriate modifications will be made to the document to reflect that contaminated sediment will be used for fill material consistent with this SOW. The compensatory mitigation plan for impacts associated with the filling of Blair Slip 1 shall also be submitted to EPA for approval
 - b. Net changes to intertidal and shallow subtidal habitat resulting from final dredging and capping designs in the Mouth of Hylebos Waterway Problem Area and identifying the need for mitigation of unavoidable impacts. If mitigation is necessary, a compensatory mitigation plan shall be submitted to EPA that also addresses the performance criteria in Section III.E. The Biological Assessment shall identify the proposed mitigation project for EPA approval;
6. **Draft OMMP.** The Draft Final (90 %) OMMP shall include a description of the post-remedial action environmental monitoring activities including data objectives, analyses to be performed, sampling equipment and methods to be used, and reporting. See Task 6 of this SOW for additional details regarding the OMMP

As discussed in Section V, the Draft Final (90%) Design for the Segment 5 Cleanup Project was submitted to EPA on June 29, 2001. The Settling Defendants submitted the Revised Draft Final (90%) Design for the Segments 3 and 4 Cleanup Project on January 30, 2004.

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C. Final (100%) Design

Within forty-five (45) days of receipt of EPA's comments on the Draft Final (90%) design, the Settling Defendants shall submit the Final Design that is one hundred (100) percent complete, unless otherwise approved by EPA. The Final (100%) Design shall fully address all comments made to the Draft (90%) Design and shall include reproducible plans and specifications suitable for bid advertisement. The final project schedule submitted as part of the Final (100%) Design shall include specific dates for major milestones and completion of the project. As described in Task 3 of this Section, certain elements of the design will be finalized as part of the subsequent RA Work Plan deliverable. This applies to the Clear Creek and Slip 5 Habitat Projects.

The following design elements will be discrete Final (90%) Design deliverables that are each subject to the schedule for submission requirements identified in Section VI of this SOW, unless otherwise approved by EPA:

- Hylebos Segment 5 Cleanup/Slip 1 NCD Facility
- Hylebos Segments 3 and 4 Cleanup
- Pier 25 Embankment

The project plans and specifications included with the Final (100%) Design shall include detailed descriptions of sampling activities, such as water quality performance sampling. The requirements for quality assurance sampling activities including the sampling protocols, sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation will be described. The CQAP(s) will address inspections, surveys, oversight, and reporting as described above in Task 2, B.4. Detailed procedures for sediment and water quality sampling and analysis (post-dredge confirmatory and long-term) shall be presented in the OMMP(s). The OMMP(s) shall include sediment sampling operations manual, quality assurance project plans, and health and safety plans for sediment sampling activities. Existing EPA-approved (HCC) Quality Assurance Project Plans (QAPPs) and other EPA-approved supporting documents may be referenced or included as appropriate.

As discussed in Section V, the Settling Defendants submitted the Final (100%) Design for the

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Segment 5 Cleanup Project to EPA on June 20, 2003. Section VI summarizes the schedule for submittal of the Final (100%) Design for the Segments 3 and 4 Cleanup Project.

Task 3: Remedial Action Work Plan

The Settling Defendants shall submit a Remedial Action (RA) Work Plan for each discrete group of remedial action construction activities. Discrete groups of construction activities, identified by the Settling Defendants and approved by EPA include the following:

- Clear Creek Habitat Improvement;
- Slip 5 Habitat Construction;
- Slip 1 Pier Demolition;
- Slip 1 NCD Facility Stage I Containment Berm Construction;
- Hylebos Waterway Segment 5 Cleanup / Slip 1 NCD Facility Project;
- Hylebos Waterway Segments 3 and 4 Cleanup Project; and
- Pier 25 Embankment Project.

Each RA Work Plan shall contain a detailed description of all remediation and construction activities, including how those construction activities are to be implemented by the Settling Defendants and coordinated with EPA (e.g., site-monitoring, material staging and handling). The following deliverables will be submitted with the RA Work Plan, and may serve as the Final (100%) Design, if approved by EPA (unless previously submitted and approved by EPA):

1. Final CQAP (See Task 5 for detail);
2. Final OMMP (See Task 6 for detail);
3. Final Contractor Pre-Construction Submittals describing remedial action construction activities (e.g., Water Quality Monitoring Plan, Health and Safety Plan, Environmental Protection Plan, Construction Quality Control (CQC) Plan, and Project Schedule).

The project schedule submitted as part of the RA Work Plans shall include each major activity and submission of deliverables generated during the remedial action. The project schedule shall

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clearly describe the interrelationship between various discrete portions of the remedial and removal actions within this SOW. The Settling Defendants shall submit RA Work Plans in accordance with Section IX of the CD and Section VI of this SOW.

Task 4: Remedial Action Construction and Documentation

The Settling Defendants shall implement the remedial action as detailed in the approved Final (100%) Design(s) and Final RA Work Plan(s). The following activities shall be completed in constructing the remedial action.

A. Award Construction Contract

The Settling Defendants shall enter into a contract with a construction contractor following EPA approval of the Final (100%) Design and RA Work Plan for each discrete group of remedial action construction activities listed in Task 3. The Settling Defendants shall award the construction contract in accordance with Section VI of this SOW.

B. Notification of RA Start

The Settling Defendants shall notify EPA of the start date for RA construction in accordance with the schedule presented in Section VI of this SOW.

C. Preconstruction Inspection and Meeting

The Settling Defendants shall participate in a pre-construction inspection and meeting for each discrete group of remedial action construction activities (as listed in Task 3) with the selected contractor, EPA, and other agencies as appropriate. The following items will be discussed at the pre-construction meeting:

1. Review methods for documenting and reporting inspection data, and compliance with specifications and plans including methods for processing design changes and securing EPA review and approval of such changes as necessary;

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2. Review methods for distributing and storing documents and reports;
3. Review work area security and safety protocol;
4. Demonstrate the construction management is in place, and discuss any appropriate modifications of the construction quality assurance plan to ensure that Site-specific considerations are addressed; and
5. Conduct a Site walk-about to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

All inspections and meetings shall be documented by Settling Defendants' designated contact and minutes shall be transmitted to all parties within seven (7) working days of the inspection or meeting.

D. Initiate Construction

The Settling Defendants shall initiate RA construction of each discrete group of construction activities in accordance with the schedule presented in Section VI of this SOW.

E. RA Briefings and Progress Meetings

The Settling Defendants shall conduct RA briefings and progress meetings on a regular basis throughout the RA. Briefings shall be held on a weekly basis during construction to discuss issues such as the results of ongoing water quality monitoring and field changes unless EPA and the Settling Defendants agree to a less frequent schedule. Progress meetings shall be held at least monthly during construction, unless EPA and the Settling Defendants agree to a less frequent schedule. Progress meetings shall be scheduled on the same day that weekly briefings occur, thus eliminating the need for additional briefings during that week. At a minimum, the Settling Defendants shall address the following at progress meetings:

1. General progress of construction with respect to RA schedule;

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2. Problems encountered and associated action items;
3. Pending design, personnel or schedule changes requiring EPA review and approval;
4. Results of any RA verification sampling and associated decisions and action items.

F. Prefinal and Final Construction Inspections/Meetings

The Settling Defendants shall conduct pre-final and final remedial action construction inspections in accordance with Paragraph 47.a of the CD.

G. Pre-Final and Final Remedial Action Completion Inspections

The Settling Defendants shall conduct pre-final and final remedial action completion inspections in accordance with Paragraph 47.b of the CD.

H. Reports

The Settling Defendants shall follow EPA guidance for preparing Remedial Action Reports described in "Close Out Procedures for National Priorities List Sites," EPA 540-R-98-016, OSWER Directive 9320.2-09A-P, PB98-963223, January 2000 in submitting the following reports.

1. Remedial Action Construction Report

The Settling Defendants shall submit RA Construction Reports when the construction is complete for appropriate remedial action elements but, if applicable, before all performance standards have been attained (i.e., prior to achieving natural recovery and long-term performance standards for mitigation).

Within thirty (30) days of the last successful final construction inspection, the Settling Defendants shall submit a RA Construction Report. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the remedial action has been constructed in accordance with the design and specifications. The written report shall

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include as-built drawings signed and stamped by a professional engineer, and other supporting documentation to demonstrate that the CQAP(s) and appropriate portions of the OMMP(s) were followed. The report shall contain the following statement, signed by a responsible corporate official of each Respondent or the Settling Defendants' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2. Remedial Action Completion Report

The Settling Defendants shall submit RA Completion Reports after construction is complete for appropriate remedial action elements and all performance standards have been attained (including performance standards for natural recovery and mitigation areas, as applicable), but where OMMP requirements will continue to be performed.

Within thirty (30) days of a successful demonstration that all performance standards have been attained, the Settling Defendants shall submit a RA Completion Report. In the report, a registered professional engineer and a responsible corporate official or the Settling Defendants' Project Coordinator shall state the remedial action has been completed in full satisfaction of the requirements of the CD. The written report shall include a summary of all information (e.g., long-term monitoring data) demonstrating performance standards not met (e.g., natural recovery) in the RA Construction Report have been obtained. The report shall also include documentation not previously submitted with the RA Construction Report verifying that performance standards, including SQO cleanup objectives, have been attained. The report shall contain the following statement, signed by a responsible corporate official of each Respondent or the Settling Defendants' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing

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violations."

Task 5: Performance Monitoring and Construction Quality Assurance

Performance monitoring shall be conducted to ensure that all performance standards are met, including cleanup verification methods and methods for determining compliance with performance standards and ARARs. The CQAP shall address performance standards related to the remedial action construction (e.g., inspections, surveys, oversight and reporting as described above in Task 1, B.4). Confirmatory sediment sampling to demonstrate completion of dredging, long-term achievement of SQOs throughout the Mouth of the Hylebos Waterway Problem Area and other long-term performance standards to be achieved after remedial action construction is completed (e.g., achievement of SQOs in natural recovery areas) shall be addressed in the OMMP(s), as described in Task 6. Existing EPA-approved (HCC) QAPPs and other supporting documents may be referenced as appropriate.

The documents listed in this section must be prepared and submitted consistent with Section III of this SOW. The required content of each of these documents is described below.

A. Construction Quality Assurance Plan

The Settling Defendants shall submit in accordance with the schedule in Section VI of this SOW, a Construction Quality Assurance Plan (CQAP) that describes the specific components of the performance methods and quality assurance program that shall ensure that the completed project meets or exceeds performance standards and design criteria, and the project plans and specifications, including achievement of SQOs as defined in this SOW. Consistent with preparation of discrete elements of the remedial design as described in Task 2, the Settling Defendants may submit more than one CQAP for discrete portions of the remedial action to facilitate contracting the remedial and removal actions under this SOW.

The draft CQAP(s) shall be submitted with the Draft Final (90%) Design Report and the final CQAP shall be submitted with the Final (100%) Design and also included with the RA Work Plan for each design. The CQAP(s) shall contain, at a minimum, the following elements:

1. Responsibilities and authorities of all organizations and key personnel involved

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in the design and construction of the remedial action, including EPA and other agencies.

2. Qualifications of the Construction Quality Assurance (CQA) Official. Establish the minimum training and experience of the CQA Officer and supporting inspection personnel.
3. Performance Standards and Methods. Describe all performance standards and methods necessary to ensure implementation of the remedial action construction, including mitigation as appropriate, in compliance with ARARs and identified site-specific performance standards. Performance monitoring requirements shall be stated to demonstrate that best management practices have been implemented for dredging operations, transportation of dredged material, and proper cap placement techniques.
4. Inspection and Verification activities. Establish the observations and tests that will be required to monitor the construction and/or installation of the components of the remedial action. The plan shall include the general scope and frequency of each type of inspection to be conducted. Inspections shall be required to measure compliance with environmental requirements and ensure compliance with all health and safety procedures.
5. Documentation. Reporting requirements for CQA activities shall be described in detail in the CQAP. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation/storage. A description of the provisions for final storage of all records consistent with the requirements of the CD shall be included.
6. Field Changes. Describe procedures for processing design changes and securing EPA review and approval of such changes to ensure changes conform to performance standards, ARARs, requirements of this SOW, are consistent with Cleanup Objectives and are protective of human health and the environment.

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7. Final Reporting. Identify all final CQAP documentation to be submitted to EPA in the in the RA Construction Report, or other deliverables and submissions.

Detailed procedures for water quality sampling and analysis described in the CQAP(s) shall be presented in the plans and specifications, as appropriate. Existing EPA-approved (HCC) QAPPs and other supporting documents may be referenced or included, as appropriate.

B. Quality Assurance Project Plans

For a particular sampling event, the Settling Defendants may propose to use an existing EPA-approved QAPP. The Settling Defendants will identify whether any changes or additions are needed for each sampling effort. Regardless of whether the Settling Defendants utilize existing EPA-approved QAPPs or submit a new QAPP for a unique sampling event, the QAPP shall be consistent with the requirements of the EPA Contract Lab Program (CLP) for laboratories proposed outside the CLP. The QAPP shall at a minimum include the following:

1. Project Description
 - a. Facility Location History
 - b. Past Data Collection Activity
 - c. Project Scope
 - d. Sample Network Design
 - e. Parameters to be Tested and Frequency
 - f. Project Schedule
2. Project Organization and Responsibility
3. Data Management Plan
 - a. Describe tracking, sorting, retrieving data
 - b. Identify software for data storage,
 - c. Minimum data requirements & data format
 - d. Data backup procedures
 - e. Submission of data in format(s) acceptable to EPA

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4. Quality Assurance Objective for Measurement Data
 - a. Level of Quality Control Effort
 - b. Accuracy, Precision, and Sensitivity of Analysis
 - c. Completeness, Representativeness and Comparability
5. Sampling Procedures
6. Sample Custody
 - a. Field Specific Custody Procedures
 - b. Laboratory Chain-of-Custody Procedures
7. Calibration Procedures and Frequency
 - a. Field Instruments/Equipment
 - b. Laboratory Instruments
8. Analytical Procedures
 - a. Non-contract Laboratory Program Analytical Methods
 - b. Field Screening and Analytical Protocol
 - c. Laboratory Procedures
9. Internal Quality Control Checks
 - a. Field Measurements
 - b. Laboratory Analysis
10. Data Reduction, Validation, and Reporting
 - a. Data Reduction
 - b. Data Validation
 - c. Data Reporting
11. Performance System Audits
 - a. Internal Audits of Field Activity
 - b. Internal Laboratory Audit
 - c. External Field Audit
 - d. External Laboratory Audit

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12. Preventative Maintenance
 - a. Routine Preventative Maintenance Procedures and Schedules
 - b. Field Instruments/Equipment
 - c. Laboratory Instruments
13. Specific Routine Procedures to Assess Data Precision, Accuracy, and Completeness
 - a. Field Measurement Data
 - b. Laboratory Data
14. Corrective Action
 - a. Sample Collection/Field Measurements
 - b. Laboratory Analysis
15. Quality Assurance Reports to Management

C. Health and Safety Plan

The Settling Defendants, or their contractors, shall develop and submit in accordance with the schedule in Section VI of this SOW, remedial action health and safety plans (RAHSPs) which are designed to protect on-site personnel and area residents from physical, chemical, and all other hazards posed by this remedial action. The RAHSPs shall develop the performance levels and criteria necessary to address the following areas:

- Facility description
- Personnel
- Levels of protection
- Safe work practices and safeguards
- Medical surveillance
- Personal protective equipment
- Personal hygiene
- Decontamination—personal and equipment
- Site work zones

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- Contaminant control
- Contingency and emergency planning including SPCC
- Logs, reports, and record keeping

The RAHSP shall follow EPA guidance and all OSHA requirements as outlined in 29 C.F.R. 1910 and 1926. The Settling Defendants may utilize existing Health and Safety Plan (HASP) project documents (e.g., pre-remedial design HASP) or other company/contractor HASPs provided that the Settling Defendants demonstrate the HASP has been modified, as necessary, or otherwise sufficiently addresses the activities covered by this SOW.

D. Field Sampling Plan

The Settling Defendants shall develop and submit, in accordance with the schedule in Section VI of this SOW, field sampling plan(s) (FSPs) (or equivalent documents/appendices) as described in “Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA”, October 1988. The FSPs will supplement the QAPP and address all sample collection activities under this SOW.

Task 6: Operation, Maintenance & Monitoring

The Settling Defendants shall submit for EPA approval in accordance with the schedule in Section VI of this SOW, a post-remedial action Operation, Maintenance, & Monitoring Plan (OMMP) for each discrete remedial action design elements of the Mouth of Hylebos Waterway Problem Area identified in Task 2, unless otherwise approved by EPA, and an overall Mouth of Hylebos long-term OMMP. The objectives of the OMMP(s) shall include:

- Confirmation that performance standards are achieved by the remedial action;
- Confirmation that SQOs are still maintained in the SMAs dredged within the Mouth of Hylebos Waterway Problem Area;
- Confirmation that exposure of subsurface contamination has not occurred through physical processes such as storms or ship scour;
- Evaluation of the effectiveness of capping areas;
- Evaluation of the effectiveness of the NCD Facility ;
- Confirming natural recovery in designated areas within 10 years following completion

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of remedial actions in adjacent areas;

- Evaluation of the long-term effectiveness of source control;
- Evaluation of the long-term effectiveness of habitat mitigation; and
- Evaluation of leachability of treated Area 5106 Sediment on other materials confined in the NCD Facility.

The Settling Defendants shall prepare an OMMP(s) to cover both implementation and long-term maintenance and monitoring of the remedial action, including mitigation areas. Each draft OMMP shall be submitted with the corresponding Draft Final (90%) Design. The final OMMP(s) shall be submitted to EPA no later than the corresponding Remedial Action Work Plan submittal. The final OMMP(s) shall address all comments made to the draft OMMP(s) and will be subject to EPA approval. After results for each monitoring event are reported, the final OMMP(s) will be reviewed and revised as necessary, under EPA direction and approval. Monitoring may include, but not be limited to the following types of actions:

- Bathymetry;
- Sediment chemistry;
- Confirmatory biological analyses (i.e., sediment bioassays or benthic infaunal abundance);
- Groundwater chemistry at the NCD Facility; and
- Seepage chemistry for specific SMAs.

The Settling Defendants shall propose the appropriate monitoring elements necessary to achieve the specified monitoring objectives in this SOW for the remedial action. A rationale for the proposed monitoring actions shall also be included. However, long-term monitoring to ensure the effectiveness of the remedial action, including mitigation, will continue as long as contaminated sediments are left in place.

The OMMP(s) shall be composed of the following elements:

1. Description of normal operation and maintenance:
 - a. Description of tasks to achieve each monitoring objective;
 - b. Description of tasks for maintenance;
 - c. Schedule showing frequency of each OMMP task; and

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- d. Summary table of OMMP activities for all activities (e.g., NCD Facility, Segment 3, 4 & 5 cleanups; embankments, mitigation, etc.)
2. Description of routine monitoring and laboratory testing:
 - a. Description of monitoring tasks;
 - b. Description of required data collection (including sample type, number, location and frequency), laboratory tests, and their interpretation;
 - c. Required quality assurance and quality control, SAP & HASP (or addenda);
 - d. Schedule of monitoring frequency; and
 - e. Description of verification sampling procedures if SQOs or performance standards are exceeded in routine monitoring.
3. Corrective Action:
 - a. Description of corrective action to be implemented in the event that cleanup or performance standards are not met (e.g., if exceedances of SQOs are detected, identify additional sampling and/or analysis to be conducted by the Settling Defendants to identify appropriate response actions, if any); and
 - b. Schedule for implementing these corrective actions.
4. Description of procedures for a request to EPA to reduce the frequency of or discontinue monitoring.
5. Records and reporting mechanisms required:
 - a. Laboratory records;
 - b. Records for long-term monitoring costs;
 - c. Documentation to comply with CERCLA 5-year Review Reporting Requirements; and
 - d. Reports to State or Federal Agencies.

The final OMMP(s) shall include detailed descriptions of all sampling activities, such as groundwater and sediment quality monitoring, and shall establish requirements for quality assurance sampling activities including the sampling protocols, sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation. The OMMP(s) shall

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include a sediment sampling operations manual, quality assurance project plans, and health and safety plans for sediment sampling activities. Existing EPA-approved (HCC) QAPPs and other EPA-approved supporting documents may be referenced or included as appropriate. As needed, the OMMP may also include procedures to allow for temporary disturbances of remediated areas (e.g., certain operations in capped embankment areas).

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V. CURRENT STATUS OF WORK PERFORMED BY SETTLING DEFENDANTS

The Settling Defendants have completed several of the tasks, as described in Section IV, required by this SOW. This Section details the current status of the six tasks outlined in Section IV. All of these activities and approvals are incorporated into this SOW.

Task 1: Remedial Design Work Plan

The Settling Defendants submitted an RD Work Plan to EPA for review and approval on April 29, 2002. EPA approval of the RD Work Plan was received on July 3, 2002.

Task 2: Remedial Design

The Settling Defendants have submitted the following design deliverables in accordance with this SOW. All activities which have been approved by EPA are incorporated into this SOW by this reference.

A. Clear Creek Habitat

The Settling Defendants submitted the Final (100%) Project Plans and Specifications, and CQAP for the Clear Creek Habitat Improvement Project on March 27, 2003 as part of the RA Work Plan for this project.

B. Slip 5 Habitat

Because the Slip 5 Habitat Site is being constructed in two phases, design submittals were submitted addressing the two Phases separately. The Settling Defendants submitted the Phase I Plans and Specifications to EPA on August 2, 2002, which included several appendices, including the CQAP for Slip 5 Habitat Construction – Phase I (Pacific International Engineering, 2002). The Plans and Specifications for Phase I were later updated by two addenda, each of which were submitted to EPA on September 3, 2002. Addendum Number One for the Slip 5 Habitat Construction – Phase I essentially transmitted to the bidding community copies of the actual permits and approvals obtained by the Port since the Plans and Specifications were put out for public bidding. Addendum Number Two modified the amount of the Slip 5 Habitat Construction

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– Phase I work that was to be completed during the term of the contract. This change to the amount of work required under the Phase I Specifications was made in response to a number of members of the bidding community informing the Port of Tacoma that they did not believe the contract time frame allowed enough time for construction of all of Phase I, Stage 2. Based on this change, the work that was not completed as part of Phase I construction will be included in the Phase II construction contract.

Plans and Specifications for the Slip 5 Mitigation Phase 2 were submitted to EPA on June 20, 2003. The Specifications for Phase 2 of the Project included a number of appendices including the Slip 5 Habitat Construction – Phase 2 Construction Quality Assurance Plan (Grette Associates 2003).

C. Hylebos Segment 5 Cleanup/Slip 1 NCD Facility

Pursuant to receipt of EPA's comments on the Draft Final (90%) Design submittal (Hart Crowser et al. 2001), the Settling Defendants submitted a Final (100%) Design for the Hylebos Waterway Segment 5 Cleanup / Slip 1 NCD Facility Project to EPA on June 20, 2003 (Hart Crowser et al 2003c). This final submittal followed the Draft Final (90%) Design submittal, a supplemental technical memo regarding Slip 1 containment berm construction (Hart Crowser 2002), and two interim drafts of the Final Design (January 22 and March 14, 2003). These deliverables provided the basis of design for the dredging of sediments from Segment 5 of the Hylebos Waterway and placement in either the PSDDA open-water disposal site or the Slip 1 NCD Facility. The documents also provided the basis of design for construction of the Slip 1 NCD Facility, including pier demolition and containment berm construction. EPA provided conditional approval for the Segment 5 portion of the project on February 27, 2003.

D. Hylebos Segments 3 and 4 Cleanup

The Settling Defendants submitted a Preliminary (30%) Design Memorandum for the Hylebos Waterway Segments 3 and 4 Project for EPA review and comment in August 2002 (Anchor et al. 2002). Following receipt of EPA comments (dated January 17, 2003), the Settling Defendants resubmitted a Revised Preliminary (30%) Design Memorandum in May 2003 (Anchor et al. 2003). Defendants then submitted a Draft Final (90%) Design to EPA on October 30, 2003. In addition, this document summarized the basis of design for the Slip 1 NCD Facility, as presented

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in the Segment 5 Final Design (Hart Crowser et al. 2003). Upon receipt of EPA comments dated November 25, 2003 on the Draft (90%) Final Design and subsequent meetings with EPA, the Settling Defendants submitted a "Revised" Draft (90 Percent) Final Design on January 30, 2004. A Final (100 Percent) Design submittal was submitted in May 2004 following receipt of EPA's comments on the Draft Final (90%) Design dated March 31, 2004. EPA provided a partial and conditional approval for the Segment 3-4 remedial design on July 15, 2004.

E. Pier 25 Embankment

The Settling Defendants submitted a Draft Final (90%) Design submittal for the Pier 25 Embankment on July 9, 2001. The Pier 25 design is currently in progress.

F. Biological Assessment Addendum

The Settling Defendants submitted a Biological Assessment (BA – Grette Associates, February 2003) as an addendum to the BA prepared by EPA for the entire Commencement Bay Nearshore/Tideflats Superfund Site (EPA 2000a). Biological Opinions were prepared by NOAA Fisheries and the U.S. Fish and Wildlife Service on August 21, 2003 and September 11, 2003, respectively.

Task 3: Remedial Action Work Plan

The Settling Defendants have submitted, and EPA has approved, RA Work Plans for five of the seven discrete groups of construction activities listed in Task 2 of Section IV, including Clear Creek and Slip 5 habitats, Slip 1 pier demolition, Stage I berm construction, and Segment 5 cleanup. EPA provided a partial and conditional Segment 3-4 Work Plan approval on July 15, 2004.

Task 4: Remedial Action Construction and Documentation

The Settling Defendants have initiated remedial action on six of the seven discrete groups of construction activities listed in Task 3 including Clear Creek and Slip 5 habitats, Slip 1 pier demolition, Stage I berm construction, Segment 5 Cleanup/Slip 1 NCD Facility, and Segment 3-4 cleanup.

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Preconstruction meetings/inspections were held for each of these construction elements, the dates of which are summarized in Section VI of this SOW. The Settling Defendants also participated in regularly scheduled RA briefings and progress meetings with the construction contactor, EPA and other agency representatives.

The defendants believe that remedial action has been completed for the five discrete activities listed above. Pre-Final and/or Final Construction Inspection letters/reports and/or RA Construction/Completion reports have been completed for the following.

- Clear Creek Habitat Improvement: Final Inspection /RA Completion Report submitted January 13, 2004;
- Slip 5 Habitat Construction-Phase I: Final Inspection/RA Completion Report submitted March 27, 2003;
- Slip 1 Pier Demolition: Pre-Final/final Inspection Report submitted February 4, 2003;
- Stage I Containment Berm: Final Inspection/RA Completion Report submitted March 6, 2003; and
- Segment 5 Cleanup: Pre-Final Inspection Report submitted February 11, 2004.

Task 5: Performance Monitoring and Construction Quality Assurance

The Settling Defendants submitted a CQAP for the Stage I Berm Construction component on August 30, 2002, which was approved by EPA on September 20, 2002. The Settling Defendants have also submitted a Final (100%) CQAP for the Hylebos Segment 5 cleanup project, which was approved by EPA on February 27 and July 16, 2003. As part of the Segment 5 RA Work Plan, the Settling Defendants submitted a RAHSP prepared by the construction contractor (Miller Contracting) for the Segment 5 Cleanup Project.

The Settling Defendants submitted a Final (100%) CQAP for the Clear Creek Habitat Mitigation Project on March 27, 2003. The Final CQAPs for Phase I and Phase II of the Slip 5 Habitat Improvement Project were submitted to EPA on July 19, 2002 and June 20, 2003 respectively.

The Draft Final (90%) CQAP for the Segments 3 and 4 Cleanup Project was submitted on

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October 3, 2003 followed by a Revised Draft Final (90%) CQAP on January 30, 2004. In response to EPA comments dated March 31, 2004, the Final (100%) CQAP for the Segments 3 and 4 Cleanup Project will be submitted in May 2004. Prior to remedial action construction, a revised RAHSP will be submitted with the Segments 3 and 4 RA Work Plan.

A Draft Final (90%) CQAP for the Pier 25 Embankment was submitted by the Settling Defendants on July 9, 2001.

Task 6: Operation, Maintenance & Monitoring

The Settling Defendants submitted a final OMMP for the Hylebos Segment 5 cleanup project on June 20, 2003. The Settling Defendants also submitted a Draft Final (90%) OMMP for the Segments 3 and 4 Cleanup Project on October 3, 2003 followed by a Revised Draft Final (90%) OMMP on January 30, 2004. In response to EPA comments dated March 31, 2004, and subsequent meetings with EPA, an overall draft Mouth of Hylebos OMMP was submitted to EPA in June of 2004.

A Draft Final (90%) OMMP for the Pier 25 Embankment was submitted to EPA by the Settling Defendants on July 9, 2001.

VI. RD/RA SCHEDULE OF DELIVERABLES AND MILESTONES

The schedule for notification to EPA or submission of major deliverables to EPA is described in Table 3. If the date for submission of any item or notification required by this SOW occurs on a weekend or federal holiday, the date for submission of that item or notification shall be the next working day following the weekend or holiday.

VII. References

Grette Associates 2003. Mouth of Hylebos Waterway – Segment 5 Remediation, Slip 1 Confined Disposal Facility Project Biological Assessment Addendum, Commencement Bay Nearshore/Tideflats Superfund Site, Tacoma, Washington. Prepared for the Port of Tacoma and Occidental Chemical Corporation. February 2003.

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Hart Crowser, Berger/ABAM, and Anchor 2003. 100 Percent Design Submittal: Hylebos Waterway Cleanup (Segment 5)/Slip 1 Nearshore Confined Disposal (NCD) Facility Project. Prepared for the Port of Tacoma, Washington and Occidental Chemical Corporation, Tacoma, Washington by Hart Crowser, Berger/ABAM, and Anchor Environmental, June 20, 2003.

Hart Crowser 2002. Draft Technical Memorandum: Supplementary Geotechnical Information, Supporting 90 Percent Design Submittal, Hylebos Waterway Segment 5 Cleanup/Slip 1 CDF Project. Prepared by Hart Crowser, Inc., dated May 23, 2002.

Anchor 2002. Preliminary (30 Percent) Design Memorandum, Hylebos Waterway Remedial Design, Segments 3 and 4. Prepared for Occidental Chemical Corporation and the Port of Tacoma, August 2002.

Anchor 2003b. Revised Preliminary (30 Percent) Design Memorandum, Hylebos Waterway Remedial Design, Segments 3 and 4. Prepared for Occidental Chemical Corporation and the Port of Tacoma, May 2003.

Simenstad, Charles A. 2000. Commencement Bay Aquatic Ecosystem Assessment: Ecosystem-Scale Restoration for Juvenile Salmon Recovery. Prepared for the City of Tacoma, Washington Department of Natural Resources and the U.S. Environmental Protection Agency.

Washington State Department of Ecology 2000. Milestone 5 report - See Section II.A

Pacific International Engineering 2002. July 19, 2002

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TABLE 1

**Table 1 - Applicable Surface Sediment Quality Criteria
Hylebos Waterway Phase I Cleanup Actions**

PARAMETER	Sediment Quality Objective (SQO)	Sediment Remedial Action Level (SRAL)
Metals (mg/kg dry weight):		
Antimony	150	(a)
Arsenic	57	(a)
Cadmium	5.1	(a)
Copper	390	(a)
Lead	450	(a)
Mercury	0.59	(a)
Nickel	140	(a)
Silver	6.1	(a)
Zinc	410	(a)
Tributyl tin porewater µgTBT/L	0.7	(a)
Volatile Organics (µg/kg dry weight):		
Ethylbenzene	10	(a)
Tetrachlorethene	57	(a)
Total Xylenes	40	(a)
Chlorinated Organic Compounds (µg/kg dry weight):		
1,2-Dichlorobenzene	50	(a)
1,3-Dichlorobenzene	170	(a)
1,4-Dichlorobenzene	110	(a)
1,2,4-Trichlorobenzene	51	(a)
Hexachlorobenzene	22	(a)
Hexachlorobutadiene	11	(a)
Polycyclic Aromatic Hydrocarbons (µg/kg dry weight):		
Naphthalene	2,100	(a)
Acenaphthylene	1,300	(a)
Acenaphthene	500	(a)
Fluorene	540	(a)
Phenanthrene	1,500	(a)
Anthracene	960	(a)
2-Methylnaphthalene	670	(a)
Total LPAHs	5,200	(a)
Fluoranthene	2,500	(a)
Pyrene	3,300	(a)
Benzo(a)anthracene	1,600	(a)
Chrysene	2,800	(a)
Benzo(b+k)fluoranthenes	3,600	(a)
Benzo(a)pyrene	1,600	(a)
Indeno(1,2,3-cd)pyrene	690	(a)
Dibenzo(a,h)anthracene	230	(a)
Benzo(g,h,i)perylene	720	(a)
Total HPAHs	17,000	(a)
Phthalates (µg/kg dry weight):		
Dimethylphthalate	160	(a)
Diethylphthalate	200	(a)
Di-n-butylphthalate	1,400	(a)
Butylbenzylphthalate	900	(a)
Bis(2-ethylhexyl)phthalate	1,300	(a)
Di-n-octylphthalate	6,200	(a)
Phenols (µg/kg dry weight):		
Phenol	420	(a)
2-Methylphenol	63	(a)
Phenols (µg/kg dry weight):		
4-Methylphenol	670	(a)
2,4-Dimethylphenol	29	(a)

**Table 1 - Applicable Surface Sediment Quality Criteria
Hylebos Waterway Phase I Cleanup Actions**

PARAMETER	Sediment Quality Objective (SQO)	Sediment Remedial Action Level (SRAL)
Pentachlorophenol	360	(a)
Miscellaneous Extractable Compounds (µg/kg dry weight):		
Benzyl alcohol	73	(a)
Benzoic acid	650	(a)
Dibenzofuran	540	(a)
N-Nitrosodiphenylamine	28	(a)
Pesticides and PCBs (µg/kg dry weight):		
p,p'-DDE	9	(a)
p,p'-DDD	16	(a)
p,p'-DDT	34	(a)
Total PCBs	300	450
Confirmatory Biological Testing Determinations (optional):		
Overall Interpretation	The SQO is exceeded when any one of the confirmatory marine sediment biological tests of WAC 173-204-315(1) demonstrates the following results:	The SRAL is exceeded when numerical SRALs described in note (a) are exceeded, or when any two of the biological tests exceed the SQO biological criteria, or one of the following test determinations is made:
Amphipod Toxicity Bioassay	The test sediment has a lower (statistically significant, t-test, p=0.05) mean survival than the reference sediment, and the test sediment mean survival is less than 75 percent, on an absolute basis.	The test sediment has a lower (statistically significant, t-test, p=0.05) mean survival than the reference sediment, and the test sediment mean survival is 30 percent lower than a value represented by the reference sediment mean mortality plus thirty percent.
Larval Toxicity/Abnormality Bioassay	The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t-test, p=0.10) than the mean normal survivorship in the reference sediment, and the test sediment mean normal survivorship is less than 85 percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than 15 percent relative to time-final in the reference sediment).	The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t-test, p=0.10) than the mean normal survivorship in the reference sediment, and the test sediment mean normal survivorship is less than 70 percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than 30 percent relative to time-final in the reference sediment).
Juvenile Polychaete Growth Bioassay	The test sediment has a mean individual growth rate of less than 70 percent of the reference sediment mean individual growth rate and the test sediment mean individual growth rate is statistically different (t-test, p=0.05) from the reference sediment mean individual growth rate.	The test sediment has a mean individual growth rate of less than 50 percent of the reference sediment mean individual growth rate and the test sediment mean individual growth rate is statistically different (t-test, p=0.05) from the reference sediment mean individual growth rate.

NOTES: (a) SRALs are the enforceable cleanup standard for this action; see Section 2.C.1 of the SOW. Numerical SRALs vary by location within the Hylebos Waterway, largely because of varying sediment rate. Specific SRAL values for the Hylebos Phase I Cleanup Project are set forth in Chapter 3 of the PDER, and may be refined during remedial design using equivalent procedures.

APPENDIX A

TABLE 2

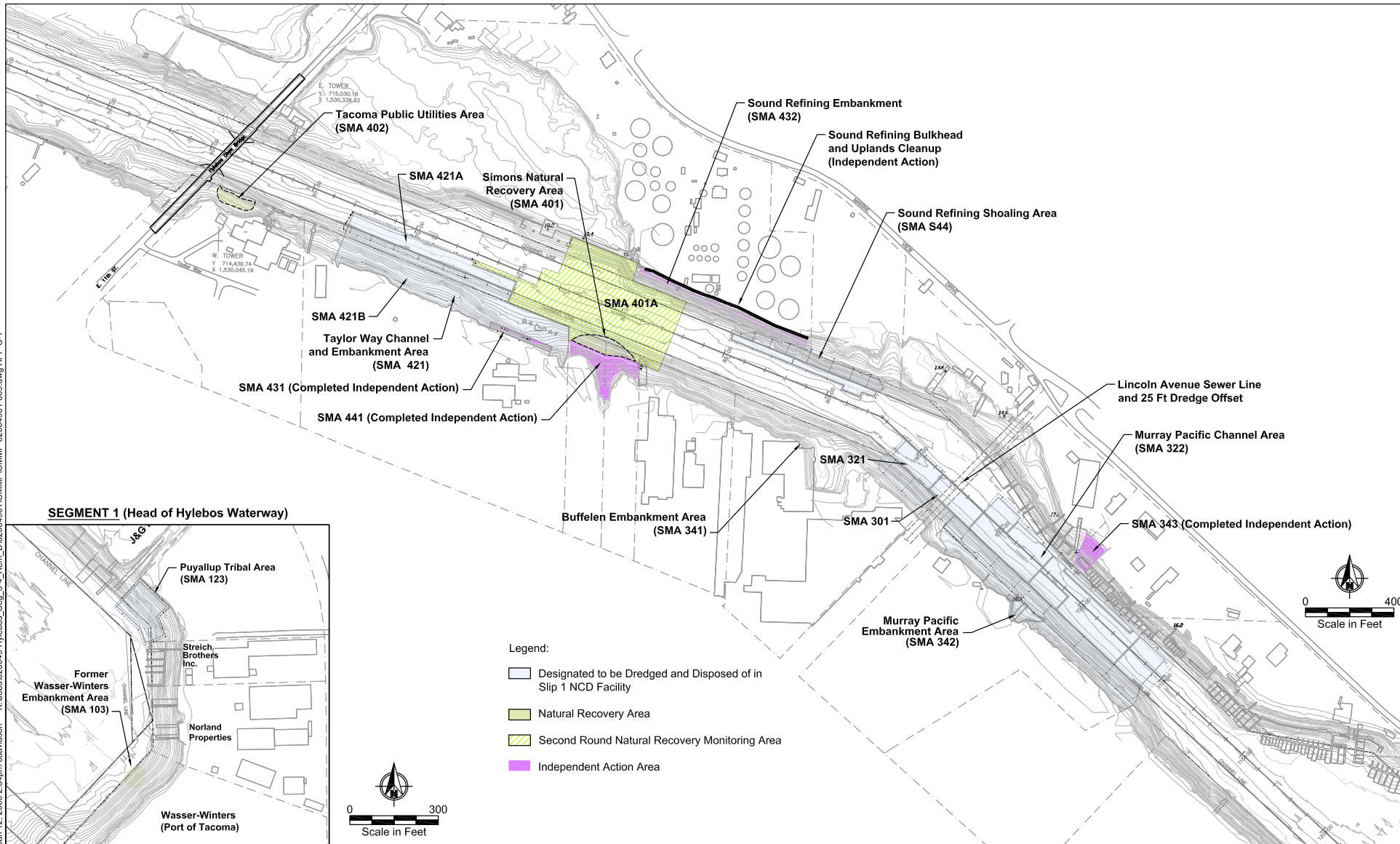
**Table 2 - Applicable Surface Water Quality Criteria
Hylebos Waterway Phase I Cleanup Actions**

PARAMETER	Chronic Criterion (b)	Acute Criterion (c)
Conventionals (a):		
Dissolved Oxygen (mg/L)	5.0 or < 0.2 change	N/A
Turbidity (NTU)	< 10 NTU or 20%	N/A
Metals (µg/L):		
Copper (dissolved)	3.1	4.8
Lead (dissolved)	8.1	210
Mercury (total)	0.025	1.8
Nickel (dissolved)	8.2	74
Silver (dissolved)	N/A	1.9
Zinc (dissolved)	81	90
Volatile Organics (µg/L):		
Dichloroethenes (total)	N/A	224,000
Tetrachlorethene	450	10,200
Trichloroethene	N/A	2,000
Vinyl chloride	525	N/A
Semivolatile Organics (µg/L):		
Hexachlorobutadiene	N/A	32

NOTES:

- (a) Water quality standards for these parameters are set forth in WAC 173-201A-030(3)
- (b) 48-hour average concentration
- (c) 1-hour average concentration

APPENDIX C-1



1 to Paragraph 48 of Section XIV (Certification of Completion) or until EPA approves a different
2 schedule. If requested by EPA, Settling Defendants shall also provide briefings for EPA to
3 discuss the progress of the Work.

4
5 30. The Settling Defendants shall notify EPA of any change in the schedule described
6 in the monthly progress report for the performance of any activity, including, but not limited to,
7 data collection and implementation of work plans, no later than seven days prior to the
8 performance of the activity.

9 31. Upon the occurrence of any event during performance of the Work that Settling
10 Defendants are required to report pursuant to Section 103 of CERCLA or Section 304 of the
11 Emergency Planning and Community Right-to-know Act (EPCRA), Settling Defendants shall
12 within twenty-four (24) hours of the onset of such event orally notify the EPA Project
13 Coordinator or the Alternate EPA Project Coordinator (in the event of the unavailability of the
14 EPA Project Coordinator), or, in the event that neither the EPA Project Coordinator or Alternate
15 EPA Project Coordinator is available, the Emergency Response Section, Region 10, United
16 States Environmental Protection Agency. These reporting requirements are in addition to the
17 reporting required by CERCLA Section 103 or EPCRA Section 304.

18
19 32. Within twenty (20) days of the onset of such an event, Settling Defendants shall
20 furnish to Plaintiff a written report, signed by the Settling Defendants' Project Coordinator,
21 setting forth the events which occurred and the measures taken, and to be taken, in response
22 thereto. Within thirty (30) days of the conclusion of such an event, Settling Defendants shall
23 submit a report setting forth all actions taken in response thereto.
24



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33. Settling Defendants shall submit four (4) copies of all plans, reports, and data required by the SOW or any other approved work plans to EPA in accordance with the schedules set forth in such plans. Settling Defendants shall simultaneously submit one (1) copy of all such plans, reports and data to the State and one (1) copy to NOAA on behalf of the Natural Resource Trustees. Upon request by EPA, Settling Defendants shall submit in electronic form all portions of any report or other deliverable Settling Defendants are required to submit pursuant to the provisions of this Consent Decree.

34. All reports and other documents submitted by Settling Defendants to EPA (other than the monthly progress reports referred to above) which purport to document Settling Defendants' compliance with the terms of this Consent Decree shall be signed by an authorized representative of the Settling Defendants, including the Supervising Contractor.

XI. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

35. After review of any plan, report or other item which is required to be submitted for approval pursuant to this Consent Decree, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that the Settling Defendants modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Settling Defendants at least one notice of deficiency and an opportunity to cure within thirty (30) days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects and the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

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36. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 35(a), (b), or (c), Settling Defendants shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XIX (Dispute Resolution) with respect to the modifications or conditions made by EPA. In the event that the Settling Defendants fail to cure within thirty (30) days, and EPA modifies the submission to cure the deficiencies pursuant to Paragraph 35(c) and the submission has a material defect, EPA retains its right to seek stipulated penalties, as provided in Section XX (Stipulated Penalties).

37. Resubmission of Plans.

a. Upon receipt of a notice of disapproval pursuant to Paragraph 35(d), Settling Defendants shall, within 30 days or such longer time as agreed to by EPA due to the magnitude of the comments in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Any stipulated penalties applicable to the submission, as provided in Section XX, shall accrue during the 30 day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraph 38 and 39. No stipulated penalties applicable to the submission, as provided in Section XX, shall accrue during the first 30-day correction period or other agreed upon correction period.

b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 35(d), Settling Defendants shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient

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1 portion of a submission shall not relieve Settling Defendants of any liability for stipulated
2 penalties under Section XX (Stipulated Penalties) related to the deficiencies.

3 38. In the event that a resubmitted plan, report or other item, or portion thereof, is
4 disapproved by EPA, EPA may again require the Settling Defendants to correct the deficiencies,
5 in accordance with the preceding Paragraphs. EPA also retains the right to modify or develop
6 the plan, report or other item. Settling Defendants shall implement any such plan, report, or
7 item as modified or developed by EPA, subject only to their right to invoke the procedures set
8 forth in Section XIX (Dispute Resolution).

9
10 39. If upon resubmission, a plan, report, or item is disapproved or modified by EPA
11 due to a material defect, Settling Defendants shall be deemed to have failed to submit such plan,
12 report, or item timely and adequately unless the Settling Defendants invoke the dispute
13 resolution procedures set forth in Section XIX (Dispute Resolution) and EPA's action is
14 overturned pursuant to that Section. The provisions of Section XIX (Dispute Resolution) and
15 Section XX (Stipulated Penalties) shall govern the implementation of the Work and accrual and
16 payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or
17 modification is upheld, stipulated penalties shall accrue for such violation from the date on
18 which the original submission was originally required, as provided in Section XX.

19 40. All plans, reports, and other items required to be submitted to EPA under this
20 Consent Decree shall, upon approval or modification by EPA, be enforceable under this Consent
21 Decree. In the event EPA approves or modifies a portion of a plan, report, or other item required
22 to be submitted to EPA under this Consent Decree, the approved or modified portion shall be
23 enforceable under this Consent Decree.
24

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XII. PROJECT COORDINATORS

41. The Settling Defendants' designated Project Coordinators are Suzanne Dudziak and Allen Meek and EPA's designated Project Coordinator is Jonathan Williams. If a Project Coordinator or Alternate Project Coordinator initially designated is changed, the identity of the successor will be given to the other Parties at least five (5) working days before the changes occur, unless impracticable, but in no event later than the actual day the change is made. Unless already reviewed and not disapproved by EPA, within five (5) days of the Effective Date of this Consent Decree, the Settling Defendants shall notify EPA of its proposed Project Coordinator who shall be subject to disapproval by EPA and shall have the technical expertise sufficient to adequately oversee all aspects of the Work. The Settling Defendants' Project Coordinator shall not be an attorney for any of the Settling Defendants in this matter. He or she may assign other representatives, including other contractors, to serve as a Mouth of the Hylebos Site representative for oversight of performance of daily operations during remedial activities.

42. Plaintiff may designate other representatives, including, but not limited to, EPA employees, and federal contractors and consultants, to observe and monitor the progress of any activity undertaken pursuant to this Consent Decree. EPA's Project Coordinator and Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager (RPM) and an On-Scene Coordinator (OSC) by the National Contingency Plan, 40 C.F.R. Part 300. In addition, EPA's Project Coordinator or Alternate Project Coordinator shall have authority, consistent with the National Contingency Plan, to halt any Work required by this Consent Decree and to take any necessary response action when s/he determines that conditions at the Mouth of the Hylebos Problem Area constitute an emergency situation or may present an

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1 immediate threat to public health or welfare or the environment due to release or threatened
 2 release of Waste Material.

3
 4 XIII. ASSURANCE OF ABILITY TO COMPLETE WORK

5 43. Within thirty (30) days of entry of this Consent Decree, Settling Defendants shall
 6 together establish and maintain financial security in the amount of \$36.5 Million in one or more
 7 of the following forms:

- 8 a. A surety bond guaranteeing performance of the Work;
 9
 10 b. One or more irrevocable letters of credit equaling the total estimated cost
 11 of the Work;
 12
 13 c. A trust fund;
 14
 15 d. A guarantee to perform the Work by one or more parent corporations or
 16 subsidiaries, or by one or more unrelated corporations that have a substantial business
 17 relationship with at least one of the Settling Defendants; or
 18
 19 e. A demonstration that one or more of the Settling Defendants satisfy the
 20 requirements of 40 C.F.R. Part 264.143(f).

21 44. If the Settling Defendants seek to demonstrate the ability to complete the Work
 22 through a guarantee by a third party pursuant to Paragraph 43 of this Consent Decree, Settling
 23 Defendants shall demonstrate that the guarantor satisfies the requirements of 40 C.F.R. Part
 24 264.143(f). If Settling Defendants seek to demonstrate their ability to complete the Work by
 25 means of the financial test or the corporate guarantee pursuant to Paragraph 43.d. or 43.e., they

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1 shall resubmit sworn statements conveying the information required by 40 C.F.R. Part
 2 264.143(f) annually, on the anniversary of the Effective Date. In the event that EPA determines
 3 at any time that the financial assurances provided pursuant to this Section are inadequate,
 4 Settling Defendants shall, within 30 days of receipt of notice of EPA's determination, obtain and
 5 present to EPA for approval one of the other forms of financial assurance listed in Paragraph 43
 6 of this Consent Decree. Settling Defendants' inability to demonstrate financial ability to
 7 complete the Work shall not excuse performance of any activities required under this Consent
 8 Decree.

9
 10 45. If Settling Defendants can show that the estimated cost to complete the remaining
 11 Work has diminished below the amount set forth in Paragraph 43 above after entry of this
 12 Consent Decree, Settling Defendants may, on any anniversary date of entry of this Consent
 13 Decree, or at any other time agreed to by the Parties, reduce the amount of the financial security
 14 provided under this Section to the estimated cost of the remaining work to be performed.
 15 Settling Defendants shall submit a proposal for such reduction to EPA, in accordance with the
 16 requirements of this Section, and may reduce the amount of the security upon approval by EPA.
 17 In the event of a dispute, Settling Defendants may reduce the amount of the security in
 18 accordance with the final administrative or judicial decision resolving the dispute.

19 46. Settling Defendants may change the form of financial assurance provided under
 20 this Section at any time, upon notice to and approval by EPA, provided that the new form of
 21 assurance meets the requirements of this Section. In the event of a dispute, Settling Defendants
 22 may change the form of the financial assurance only in accordance with the final administrative
 23 or judicial decision resolving the dispute.

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XIV. CERTIFICATION OF COMPLETION

47. a. Completion of the Remedial Action Construction.

(1) Within thirty (30) days after Settling Defendants conclude that the Remedial Action construction, including construction of any required mitigation, has been fully performed but before all the Performance Standards have been attained, Settling Defendants shall schedule and conduct a pre-certification inspection to be attended by Settling Defendants and EPA. If, after the pre-certification inspection(s), the Settling Defendants still believe that the Remedial Action construction has been fully performed, they shall submit a written Remedial Action Construction Report requesting certification to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions) within thirty (30) days of the inspection. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the Remedial Action construction has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer and other supporting documentation to demonstrate the Construction Quality Assurance Plan ("CQAP") required by the SOW was followed. The report shall contain the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If, after completion of the pre-certification construction inspection and receipt and review of the written report, EPA, after reasonable opportunity to review and comment by the State,

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determines that the Remedial Action construction or any portion thereof has not been completed in accordance with this Consent Decree, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to this Consent Decree to complete the Remedial Action construction. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree or require the Settling Defendants to submit a schedule to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions). Settling Defendants shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph, subject to their right to invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

(2) If EPA concludes, based on the initial or any subsequent report requesting Certification of Remedial Action Construction Completion and after a reasonable opportunity for review and comment by the State, that the Remedial Action construction has been performed in accordance with this Consent Decree, EPA will so certify in writing to Settling Defendants. Certification of Completion of the Remedial Action construction shall not affect Settling Defendants' obligations under this Consent Decree.

b. Completion of Remedial Action

(1) Within thirty (30) days after Settling Defendants conclude that the Remedial Action has been fully performed and all the Performance Standards have been attained (e.g., natural recovery and full functioning of mitigation), Settling Defendants shall schedule and conduct a pre-certification inspection to be attended by Settling Defendants and EPA. If, after the pre-certification inspection(s), the Settling Defendants still believe that the Remedial Action

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has been fully performed and the Performance Standards have been attained, they shall submit a written Remedial Action Completion Report requesting certification to EPA for approval pursuant to Section XI (EPA Approval of Plans and Other Submissions) within thirty (30) days of the inspection. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the Remedial Action has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a professional engineer and other supporting documentation to demonstrate the CQAP was followed. The report shall contain the following statement, signed by a responsible corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:

To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If, after completion of the pre-certification inspection and receipt and review of the written report, EPA, after reasonable opportunity to review and comment by the State, determines that the Remedial Action or any portion thereof has not been completed in accordance with this Consent Decree or that the Performance Standards have not been achieved, EPA will notify Settling Defendants in writing of the activities that must be undertaken by Settling Defendants pursuant to this Consent Decree to complete the Remedial Action and achieve the Performance Standards. Provided, however, that EPA may only require Settling Defendants to perform such activities pursuant to this Paragraph to the extent that such activities are consistent with the "scope of the remedy selected in the ROD," as that term is defined in Paragraph 12.b. EPA will set forth in the notice a schedule for performance of such activities consistent with the Consent Decree and the SOW or require the Settling Defendants to submit a schedule to EPA for

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1 approval pursuant to Section XI (EPA Approval of Plans and Other Submissions). Settling
 2 Defendants shall perform all activities described in the notice in accordance with the
 3 specifications and schedules established pursuant to this Paragraph, subject to their right to
 4 invoke the dispute resolution procedures set forth in Section XIX (Dispute Resolution).

5
 6 (2) If EPA concludes, based on the initial or any subsequent report
 7 requesting Certification of Remedial Action Completion and after a reasonable opportunity for
 8 review and comment by the State, that the Remedial Action has been performed in accordance
 9 with this Consent Decree and that the Performance Standards have been achieved, EPA will so
 10 certify in writing to Settling Defendants. This certification shall constitute the Certification of
 11 Completion of the Remedial Action for purposes of this Consent Decree, including, but not
 12 limited to, Section XXI (Covenants Not to Sue by Plaintiff). Certification of Completion of the
 13 Remedial Action shall not affect Settling Defendants' obligations under this Consent Decree.

14 48. Completion of the Work.

15 a. Within thirty (30) days after Settling Defendants conclude that all phases
 16 of the Work described in consistent with the SOW and this Consent Decree, have been fully
 17 performed, Settling Defendants shall schedule and conduct a pre-certification inspection to be
 18 attended by Settling Defendants and EPA. If, after the pre-certification inspection, the Settling
 19 Defendants still believe that the Work has been fully performed, Settling Defendants shall
 20 submit a Consent Decree Work Completion Report. In the report, a registered professional
 21 engineer shall state that the Work has been completed in full satisfaction of the requirements of
 22 this Consent Decree. The report shall contain the following statement, signed by a responsible
 23 corporate official of a Settling Defendant or the Settling Defendants' Project Coordinator:
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1 To the best of my knowledge, after thorough investigation, I certify that the
 2 information contained in or accompanying this submission is true, accurate and
 3 complete. I am aware that there are significant penalties for submitting false
 4 information, including the possibility of fine and imprisonment for knowing
 5 violations.

6 If, after review of the written report, EPA, after reasonable opportunity to review and comment
 7 by the State, determines that any portion of the Work has not been completed in accordance with
 8 this Consent Decree, EPA will notify Settling Defendants in writing of the activities that must be
 9 undertaken by Settling Defendants pursuant to this Consent Decree to complete the Work.
 10 Provided, however, that EPA may only require Settling Defendants to perform such activities
 11 pursuant to this Paragraph to the extent that such activities are consistent with the "scope of the
 12 remedy selected in the ROD," as that term is defined in Paragraph 12.b. EPA will set forth in the
 13 notice a schedule for performance of such activities consistent with the Consent Decree and the
 14 SOW or require the Settling Defendants to submit a schedule to EPA for approval pursuant to
 15 Section XI (EPA Approval of Plans and Other Submissions). Settling Defendants shall perform
 16 all activities described in the notice in accordance with the specifications and schedules
 17 established therein, subject to their right to invoke the dispute resolution procedures set forth in
 18 Section XIX (Dispute Resolution).

19 b. If EPA concludes, based on the initial or any subsequent request for
 20 Certification of Completion by Settling Defendants and after a reasonable opportunity for review
 21 and comment by the State, that the Work has been performed in accordance with this Consent
 22 Decree, EPA will so notify the Settling Defendants in writing.

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XV. Emergency Response

49. In the event of any action or occurrence during the performance of the Work which causes or threatens a release of Waste Material from the Mouth of the Hylebos Problem Area that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Settling Defendants shall, subject to Paragraph 50, immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall immediately notify the EPA's Project Coordinator, or, if the Project Coordinator is unavailable, EPA's Alternate Project Coordinator. If neither of these persons is available, the Settling Defendants shall notify the EPA Emergency Response Unit, Region 10 at (206) 553-1263. Settling Defendants shall take such actions in consultation with EPA's Project Coordinator or other available authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plans, the Contingency Plans, and any other applicable plans or documents developed pursuant to the SOW. In the event that Settling Defendants fail to take appropriate response action as required by this Section, and EPA takes such action instead, Settling Defendants shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Reimbursement of Response Costs), unless Settling Defendants invoke dispute resolution proceedings under Section XIX of this Consent Decree and to the extent they prevail in such dispute resolution proceedings.

50. Nothing in the preceding Paragraph or in this Consent Decree shall be deemed to limit any authority of the United States a) to take all appropriate action to protect human health and the environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the Mouth of the Hylebos Problem Area, or b) to direct or order such action, or seek an order from the Court, to protect human health and the environment

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1 or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material
 2 on, at, or from the Mouth of the Hylebos Problem Area, subject to Section XXI (Covenants Not
 3 to Sue by Plaintiff).

4 XVI. PAYMENTS FOR RESPONSE COSTS

5 51. Payments for Future Response Costs.

7 a. Settling Defendants shall pay to EPA all Future Response Costs incurred
 8 prior to the Certification of the Work under Section XIV of this Consent Decree that are not
 9 inconsistent with the National Contingency Plan, excluding the first \$500,000 of Future
 10 Oversight Costs. Settling Defendants shall pay to EPA any and all additional Future Oversight
 11 Costs above this amount. On a periodic basis the United States will send Settling Defendants a
 12 bill requiring payment that includes a Superfund Cost Recovery Package Imaging and Online
 13 System (SCORPIOS) certified summary. Settling Defendants shall make all payments within
 14 thirty (30) days of Settling Defendants' receipt of each bill requiring payment, except as
 15 otherwise provided in Paragraph 52. Settling Defendants shall make all payments required by
 16 this Paragraph by a certified or cashier's check or checks or wire transfer made payable to "EPA
 17 Hazardous Substance Superfund," referencing the name and address of the party making the
 18 payment, EPA Site/Spill ID Number 102J, and DOJ Case Number 90-11-2-726/2. Settling
 19 Defendants shall send check(s) to:

21 Mellon Bank
 22 EPA-Region 10
 23 ATTN: Superfund Accounting,
 24 P.O. Box 360903M,
 Pittsburgh, PA 15251

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b. At the time of payment, Settling Defendants shall send notice that payment has been made to the United States, to EPA and to the Regional Financial Management Officer, in accordance with Section XXVI (Notices and Submissions).

c. The total amount to be paid by Settling Defendants pursuant to Subparagraph 51.a. shall be deposited in the Hylebos Waterway Problem Areas Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the CB/NT Site, or transferred by EPA to the EPA Hazardous Substance Superfund.

52. Settling Defendants may contest payment of any Future Response Costs under Paragraph 51 if they determine that the United States has made an accounting error or if they allege that a cost item that is included represents costs that are inconsistent with the NCP. Such objection shall be made in writing within thirty (30) days of receipt of the bill and must be sent to the United States pursuant to Section XXVI (Notices and Submissions). Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, the Settling Defendants shall within the 30-day period pay all uncontested Future Response Costs to the United States in the manner described in Paragraph 51. Simultaneously, the Settling Defendants shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Washington and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. The Settling Defendants shall send to the United States, as provided in Section XXVI (Notices and Submissions), a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account

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under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, the Settling Defendants shall initiate the Dispute Resolution procedures in Section XIX (Dispute Resolution). If the United States prevails in the dispute, within five (5) days of the resolution of the dispute, the Settling Defendants shall pay the sums due (with accrued interest) to the United States in the manner described in Paragraph 51. If the Settling Defendants prevail concerning any aspect of the contested costs, the Settling Defendants shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to the United States in the manner described in Paragraph 51; Settling Defendants shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XIX (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding the Settling Defendants' obligation to reimburse the United States for its Future Response Costs.

53. In the event that the payments required by Paragraph 51 are not made within thirty (30) days of the Settling Defendants' receipt of the bill, Settling Defendants shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill. The Interest shall accrue through the date of the Settling Defendant's payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to Plaintiff by virtue of Settling Defendants' failure to make timely payments under this Section including, but not limited to, payment of stipulated penalties pursuant to Paragraph 72. The Settling Defendants shall make all payments required by this Paragraph in the manner described in Paragraph 51.

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54. Payment of Settlement Funds to Settling Defendants. EPA shall provide notice to the escrow agent of the Hylebos Waterway Problem Areas Escrow Account to disburse funds from the Hylebos Waterway Problem Areas Escrow Account to the Mouth of the Hylebos Cleanup Account when the following conditions are satisfied: (1) this Consent Decree is entered by the Court; (2) Settling Defendants have established appropriate financial assurances in accordance with Section XIII (Assurance of Ability to Complete Work); (3) the parties to the Cash-Out Consent Decree have delivered funds to the Hylebos Waterway Problem Areas Escrow Account in accordance with the terms of the Cash-Out Consent Decree and its appended Escrow Agreement; (4) an initial distribution of \$434,733.00 has been made from the Hylebos Waterway Problem Areas Escrow Account to the EPA Hylebos Waterway Problem Areas Special Account in accordance with paragraph 6 of the Escrow Agreement appended to the Cash-Out Consent Decree; and (5) the Settling Defendants provide to EPA a copy of a signed final decision by a neutral mediator/arbitrator setting forth a fixed percentage of all funds deposited in the Hylebos Waterway Problem Areas Escrow Account (less \$434,733.00) to be distributed to the Mouth of Cleanup Account pursuant to the terms and conditions of the Cash-Out Consent Decree.

55. Upon satisfaction of the conditions set forth in Paragraph 54, and the Settling Defendants' provisions of instructions for transferring funds from the Hylebos Waterway Problem Areas Escrow Account to the Mouth of the Hylebos Cleanup Account, EPA shall take action sufficient to cause a distribution of the funds pursuant to paragraph 6 of the Escrow Agreement appended to the Cash-Out Consent Decree. In accordance with the decision described in condition (5) of Paragraph 54, and the instructions for transferring funds provided by Settling Defendants, the appropriate fixed percentage of all funds deposited in the Hylebos Waterway Problem Areas Escrow Account (less \$434,733.00) shall be disbursed to the Mouth of

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1 the Hylebos Cleanup Account, less one-half fees to be paid pursuant to paragraph 9 of the
2 Escrow Agreement appended to the Cash-Out Consent Decree.

3 56. The Mouth of the Hylebos Cleanup Account shall be maintained as a separate
4 account, and shall only include proceeds distributed to this Account pursuant to Paragraph 55 of
5 this Consent Decree and any interest that accrues thereon. Funds from the Mouth of the Hylebos
6 Cleanup Account distributed to the Port of Tacoma and Occidental Chemical Corporation shall
7 only be used to pay for Remedial Action that has been or will be performed at the Mouth of the
8 Hylebos Waterway Site. The Settling Defendants shall provide to EPA quarterly statements
9 showing the Mouth of the Hylebos Account balance and identifying all invoices paid with Mouth
10 of the Hylebos Account funds. The Settling Defendants shall provide EPA with all invoices if
11 requested by EPA. All funds remaining in the Mouth of the Hylebos Cleanup Account shall be
12 transferred to EPA within three days of any of the following circumstances: (1) EPA certifies
13 completion of the Work pursuant to Paragraph 48 of the Consent Decree; (2) EPA assumes
14 performance of the Work pursuant to Paragraph 87 of this Consent Decree; or (3) all Settling
15 Defendants become insolvent or cease performing the Work.
16

17 XVII. INDEMNIFICATION AND INSURANCE

18 57. Settling Defendants' Indemnification of the United States

19
20 a. The United States does not assume any liability by entering into this
21 agreement or by virtue of any designation of Settling Defendants as EPA's authorized
22 representatives under Section 104(e) of CERCLA. Settling Defendants shall indemnify, save
23 and hold harmless the United States and its officials, agents, employees, contractors,
24 subcontractors, or representatives for or from any and all claims or causes of action arising from,

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or on account of, negligent or other wrongful acts or omissions of Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree, including, but not limited to, any claims arising from any designation of Settling Defendants as EPA's authorized representatives under Section 104(e) of CERCLA. Further, the Settling Defendants agree to pay the United States all costs it incurs including, but not limited to, attorneys fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Settling Defendants, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Consent Decree. The United States shall not be held out as a party to any contract entered into by or on behalf of Settling Defendants in carrying out activities pursuant to this Consent Decree. Neither the Settling Defendants nor any such contractor shall be considered an agent of the United States. The United States shall give Settling Defendants notice of any claim for which the United States plans to seek indemnification pursuant to this Paragraph and shall consult with Settling Defendants prior to settling such claim.

58. Settling Defendants waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Settling Defendants and any person for performance of Work on or relating to the Mouth of the Hylebos Problem Area, including, but not limited to, claims on account of construction delays. In addition, Settling Defendants shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any

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1 contract, agreement, or arrangement between any one or more of Settling Defendants and any
 2 person for performance of Work on or relating to the Mouth of the Hylebos Problem Area,
 3 including, but not limited to, claims on account of construction delays.

4
 5 59. No later than fifteen (15) days before commencing any on-site Work, Settling
 6 Defendants shall secure, and shall maintain until the first anniversary of EPA's Certification of
 7 Completion of the Remedial Action pursuant to Subparagraph 47.b. of Section XIV
 8 (Certification of Completion) comprehensive general liability insurance with limits of \$25
 9 million combined single limit, and automobile liability insurance with limits of \$2 million
 10 dollars, combined single limit, naming the United States as an additional insured. In addition,
 11 for the duration of this Consent Decree, Settling Defendants shall satisfy, or shall ensure that
 12 their contractors or subcontractors satisfy, all applicable laws and regulations regarding the
 13 provision of worker's compensation insurance for all persons performing the Work on behalf of
 14 Settling Defendants in furtherance of this Consent Decree. Prior to commencement of the Work
 15 under this Consent Decree, Settling Defendants shall provide to EPA certificates of such
 16 insurance and a copy of each insurance policy. Settling Defendants shall resubmit such
 17 certificates and copies of policies each year on the anniversary of the Effective Date. If Settling
 18 Defendants demonstrate by evidence satisfactory to EPA that any contractor or subcontractor
 19 maintains insurance equivalent to that described above, or insurance covering the same risks but
 20 in a lesser amount, then, with respect to that contractor or subcontractor, Settling Defendants
 21 need provide only that portion of the insurance described above which is not maintained by the
 22 contractor or subcontractor.

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XVIII. FORCE MAJEURE

60. "Force Majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of the Settling Defendants, of any entity controlled by Settling Defendants, or of Settling Defendants' contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Settling Defendants' best efforts to fulfill the obligation. The requirement that the Settling Defendants exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential Force Majeure event and best efforts to address the effects of any potential Force Majeure event (1) as it is occurring and (2) following the potential Force Majeure event, such that the delay is minimized to the greatest extent possible. "Force Majeure" does not include financial inability to complete the Work or a failure to attain the Performance Standards.

61. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a Force Majeure event, the Settling Defendants shall notify orally EPA's Project Coordinator or, in his or her absence, EPA's Alternate Project Coordinator or, in the event both of EPA's designated representatives are unavailable, the Director of the Environmental Cleanup Office, EPA Region 10, within seventy-two (72) hours of when Settling Defendants first knew that the event might cause a delay. If the seventy-two (72) hour notification period expires on a Saturday, Sunday or federal holiday, the Settling Defendants shall provide oral notice no later than 12:00 p.m. (Noon) on the next working day. Within ten (10) days thereafter, Settling Defendants shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the

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1 delay; the Settling Defendants' rationale for attributing such delay to a Force Majeure event if
 2 they intend to assert such a claim; and a statement as to whether, in the opinion of the Settling
 3 Defendants, such event may cause or contribute to an endangerment to public health, welfare or
 4 the environment. The Settling Defendants shall include with any notice all available
 5 documentation supporting their claim that the delay was attributable to a Force Majeure. Failure
 6 to comply with the above requirements shall preclude Settling Defendants from asserting any
 7 claim of Force Majeure for that event for the period of time of such failure to comply, and for
 8 any additional delay caused by such failure. Settling Defendants shall be deemed to know of any
 9 circumstance of which Settling Defendants, any entity controlled by Settling Defendants, or
 10 Settling Defendants' contractors knew or should have known.

11
 12 62. If EPA agrees that the delay or anticipated delay is attributable to a Force Majeure
 13 event, the time for performance of the obligations under this Consent Decree that are affected by
 14 the Force Majeure event will be extended by EPA for such time as is necessary to complete
 15 those obligations. An extension of the time for performance of the obligations affected by the
 16 Force Majeure event shall not, of itself, extend the time for performance of any other obligation
 17 not affected by the Force Majeure event. If EPA does not agree that the delay or anticipated
 18 delay has been or will be caused by a Force Majeure event, EPA will notify the Settling
 19 Defendants in writing of its decision. If EPA agrees that the delay is attributable to a Force
 20 Majeure event, EPA will notify the Settling Defendants in writing of the length of the extension,
 21 if any, for performance of the obligations affected by the Force Majeure event.

22 63. If the Settling Defendants elect to invoke the dispute resolution procedures set
 23 forth in Section XIX (Dispute Resolution), they shall do so no later than thirty (30) days after
 24 receipt of EPA's notice. In any such proceeding, Settling Defendants shall have the burden of

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demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Settling Defendants complied with the requirements of Paragraphs 60 and 61, above. If Settling Defendants carry this burden, the delay at issue shall be deemed not to be a violation by Settling Defendants of the affected obligation of this Consent Decree identified to EPA and the Court.

XIX. DISPUTE RESOLUTION

64. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the United States to enforce obligations of the Settling Defendants that have not been disputed in accordance with this Section.

65. Any dispute which arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the parties to the dispute. The period for informal negotiations shall not exceed twenty (20) days from the time the dispute arises, unless it is modified by written agreement of the parties to the dispute. The dispute shall be considered to have arisen when one party sends the other party a written Notice of Dispute.

66. Statements of Position

a. In the event that the parties cannot resolve a dispute by informal negotiations under the preceding Paragraph, then the position advanced by EPA shall be

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considered binding unless, within twenty (20) days after the conclusion of the informal negotiation period, Settling Defendants invoke the formal dispute resolution procedures of this Section by serving on the United States a written Statement of Position on the matter in dispute, including, but not limited to, any factual data, analysis or opinion supporting that position and any supporting documentation relied upon by the Settling Defendants. The Statement of Position shall specify the Settling Defendants' position as to whether formal dispute resolution should proceed under Paragraph 67 or Paragraph 68.

b. Within 20 days after receipt of Settling Defendants' Statement of Position, EPA will serve on Settling Defendants its Statement of Position, including, but not limited to, any factual data, analysis, or opinion supporting that position and all supporting documentation relied upon by EPA. EPA's Statement of Position shall include a statement as to whether formal dispute resolution should proceed under Paragraph 67 or 68. Within 7 days after receipt of EPA's Statement of Position, Settling Defendants may submit a Reply.

c. If there is disagreement between EPA and the Settling Defendants as to whether dispute resolution should proceed under Paragraph 67 or 68, the parties to the dispute shall follow the procedures set forth in the paragraph determined by EPA to be applicable. However, if the Settling Defendants ultimately appeal to the Court to resolve the dispute, the Court shall determine which paragraph is applicable in accordance with the standards of applicability set forth in Paragraphs 67 and 68.

67. Formal dispute resolution for disputes pertaining to the selection or adequacy of any response action and all other disputes that are accorded review on the administrative record under applicable principles of administrative law shall be conducted pursuant to the procedures

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1 set forth in this Paragraph. For purposes of this Paragraph, the adequacy of any response action
 2 includes, without limitation: (1) the adequacy or appropriateness of plans, procedures to
 3 implement plans, or any other items requiring approval by EPA under this Consent Decree; and
 4 (2) the adequacy of the performance of response actions taken pursuant to this Consent Decree.
 5 Nothing in this Consent Decree shall be construed to allow any dispute by Settling Defendants
 6 regarding the validity of the ROD's provisions.

7
 8 a. An administrative record of the dispute shall be maintained by EPA and
 9 shall contain all statements of position, including supporting documentation, submitted pursuant
 10 to this Section. Where appropriate, EPA may allow submission of supplemental statements of
 11 position by the parties to the dispute.

12 b. The Director of the Office of Environmental Cleanup, EPA Region 10,
 13 will issue a final administrative decision resolving the dispute based on the administrative record
 14 described in Paragraph 67.a. This decision shall be binding upon the Settling Defendants,
 15 subject only to the right to seek judicial review pursuant to Paragraph 67.c. and d.

16
 17 c. Any administrative decision made by EPA pursuant to Paragraph 67.b.
 18 shall be reviewable by this Court, provided that a motion for judicial review of the decision is
 19 filed by the Settling Defendants with the Court and served on all Parties within twenty (20) days
 20 of receipt of the final decision by the Director of the Office of Environmental Cleanup, EPA
 21 Region 10. The motion shall include a description of the matter in dispute, the efforts made by
 22 the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute
 23 must be resolved to ensure orderly implementation of this Consent Decree. The United States
 24 may file a response to Settling Defendants' motion within twenty (20) days of receipt of the

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1 motion or within any different time frame that the local court rules may provide, and Settling
 2 Defendants may file a reply brief within five (5) days of receipt of the response or such different
 3 time frame that the local court rules may provide.

4 d. In proceedings on any dispute governed by this Paragraph, Settling
 5 Defendants shall have the burden of demonstrating that the decision of the Director of the Office
 6 of Environmental Cleanup is arbitrary and capricious or otherwise not in accordance with law.
 7 Judicial review of EPA's decision shall be on the administrative record compiled pursuant to
 8 Paragraph 67.a.
 9

10 68. Formal dispute resolution for disputes that neither pertain to the selection or
 11 adequacy of any response action nor are otherwise accorded review on the administrative record
 12 under applicable principles of administrative law, shall be governed by this Paragraph.

13 a. Following receipt of Settling Defendants' Statement of Position submitted
 14 pursuant to Paragraph 66, the Director of the Office of Environmental Cleanup, EPA Region 10,
 15 will issue a final decision resolving the dispute. The decision of the Director of the Office of
 16 Environmental Cleanup shall be binding on the Settling Defendants unless, within twenty (20)
 17 days of receipt of the decision, the Settling Defendants file with the Court and serve on the
 18 parties a motion for judicial review of the decision setting forth the matter in dispute, the efforts
 19 made by the parties to resolve it, the relief requested, and the schedule, if any, within which the
 20 dispute must be resolved to ensure orderly implementation of the Consent Decree. The United
 21 States may file a response to Settling Defendants' motion within twenty (20) days of receipt of
 22 the motion or within any different time frame that the local court rules may provide, and Settling
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1 Defendants may file a reply brief within five (5) days of receipt of the response or such different
 2 time frame that the local court rules may provide.

3 b. Notwithstanding Paragraph Y of Section I (Background) of this Consent
 4 Decree, judicial review of any dispute governed by this Paragraph shall be governed by
 5 applicable principles of law.
 6

7 69. The invocation of formal dispute resolution procedures under this Section shall
 8 not extend, postpone or affect in any way any obligation of the Settling Defendants under this
 9 Consent Decree, not directly in dispute, unless EPA or the Court agrees otherwise. Stipulated
 10 penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed
 11 pending resolution of the dispute as provided in Paragraph 78. Notwithstanding the stay of
 12 payment, stipulated penalties shall accrue from the first day of noncompliance with any
 13 applicable provision of this Consent Decree. In the event that the Settling Defendants do not
 14 prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in
 15 Section XX (Stipulated Penalties).
 16

17 XX. STIPULATED PENALTIES

18 70. Settling Defendants shall be liable for stipulated penalties in the amounts set forth
 19 in Paragraphs 71 and 72 to the United States for failure to comply with the requirements of this
 20 Consent Decree specified below, unless excused under Section XVIII (Force Majeure) or
 21 otherwise resolved in Dispute Resolution. "Compliance" by Settling Defendants shall include
 22 completion of the activities under this Consent Decree or SOW or other Work plan approved
 23 under this Consent Decree identified below in accordance with all applicable requirements of
 24 law, this Consent Decree, the SOW, and any plans or other documents approved by EPA
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pursuant to this Consent Decree and within the specified time schedules established by and approved under this Consent Decree.

71. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Subparagraph 71.b after the opportunity to cure submissions pursuant to Section XI of this Consent Decree, if applicable:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1st through 30th day
\$5,000	31st through 60th day
\$8,000	61st day and beyond

b. Compliance Milestones.

1. Remedial Action Work Plans - failure to submit timely or adequate draft and revised final drafts of any such plans
2. Remedial Action Construction Schedules -- failure to perform remedial action construction or any discrete phases and/or individual components of the remedial action on the approved schedule or in an adequate manner or not in compliance with the SOW or approved remedial action work plan or deliverables

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3. Completion Reports - failure to submit timely or adequate completion reports listed below

- a. Remedial Action Construction Report
- b. Remedial Action Completion Report

4.. Operation, Maintenance and Monitoring

- a. failure to perform timely and adequate monitoring in accordance with the approved OMMP and approved schedule
- b. failure to submit timely and adequate monitoring reports
- c. failure to perform maintenance on any component of the remedial action on the required schedule and in accordance with approved work plans or EPA requests

72. Stipulated Penalty Amounts - Reports, Other Deliverables, and Other Violations of the Consent Decree.

a. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate monthly progress reports, any deliverable required by the SOW or this Consent Decree after the opportunity to cure submissions pursuant to Section XI of this Consent Decree, except those listed in Paragraph 71.b. above, or any other violation of this

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Consent Decree, including, but not limited to, late payments required under this Consent Decree :

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1st through 14th day
\$1,000	15th through 30th day
\$2,500	31st day and beyond

73. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 87 of Section XXI (Covenants Not to Sue by Plaintiff), Settling Defendants shall be liable for a stipulated penalty in the amount of three times the cost incurred by EPA to perform the work or \$1,000,000, whichever is less.

74. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, except as otherwise provided in this Consent Decree, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section XI (EPA Approval of Plans and Other Submissions), until receipt of the second notice of deficiency during the period, if any, beginning on the 21st day after EPA's receipt of such submission until the date that EPA notifies Settling Defendants of any deficiency; (2) with respect to a decision by the Director of the Office of Environmental Cleanup, EPA Region 10, under Paragraph 67.b. or 68.a of Section XIX (Dispute Resolution), during the period, if any, beginning on the 21st day after the date that Settling Defendants' reply to EPA's Statement of Position is received until the date that the Director issues a final decision regarding

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such dispute; or (3) with respect to judicial review by this Court of any dispute under Section XIX (Dispute Resolution), during the period, if any, beginning on the 31st day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

75. Following EPA's determination that Settling Defendants have failed to comply with a requirement of this Consent Decree, EPA may give Settling Defendants written notification of the same and describe the noncompliance. For violations based on submissions or Work being inadequately prepared or performed, EPA shall provide written notification and describe the noncompliance. EPA shall send the Settling Defendants a written demand for the payment of the penalties. However, penalties shall begin accruing as provided in the preceding Paragraph regardless of whether EPA has notified the Settling Defendants of a violation or when the demand is sent.

76. All penalties accruing under this Section shall be due and payable to the United States within thirty (30) days of the Settling Defendants' receipt from EPA of a demand for payment of the penalties, unless Settling Defendants invoke the Dispute Resolution procedures under Section XIX (Dispute Resolution). All payments of stipulated penalties made under this Paragraph shall be identified as "stipulated penalties" and shall be made by certified or cashier's check made payable to "EPA Hazardous Substance Superfund," shall be mailed to Mellon Bank, EPA-Region 10, ATTN Superfund Accounting, P.O. Box 360903M, Pittsburgh, PA 15251, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID, and DOJ Case Number 90-11-2-726/2, and the name and address of the party making payment. Copies of check(s) paid pursuant to this Section, and any accompanying

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transmittal letter(s), shall be sent to the United States as provided in Section XXVI (Notices and Submissions), and to the EPA Regional Financial Management Officer.

77. The payment of penalties shall not alter in any way Settling Defendants' obligation to complete the performance of the Work required under this Consent Decree.

78. Penalties shall continue to accrue as provided in Paragraph 74 during any dispute resolution period, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to this Court, accrued penalties determined to be owing shall be paid to EPA within fifteen (15) days of the agreement or the receipt of EPA's decision or order;

b. If the dispute is appealed to this Court and the United States prevails in whole or in part, Settling Defendants shall pay all accrued penalties determined by the Court to be owed to EPA within sixty (60) days of receipt of the Court's decision or order, except as provided in Subparagraph c below;

c. If the United States prevails in whole or in part, and the District Court's decision is appealed by any Party, Settling Defendants shall pay all accrued penalties determined by the District Court to be owing to the United States into an interest-bearing escrow account within 60 days of receipt of the Court's decision or order. Penalties shall be paid into this account as they continue to accrue, at least every sixty (60) days. Within fifteen (15) days of receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to EPA or to Settling Defendants to the extent that they prevail. If the United States does not prevail in whole or in part, no such penalties shall be assessed against Settling Defendants.

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79. If Settling Defendants fail to pay stipulated penalties when due, the United States may institute proceedings to collect the penalties, as well as interest. Settling Defendants shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 76.

80. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States to seek any other remedies or sanctions available by virtue of Settling Defendants' violation of this Consent Decree or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA. Provided, however, that the United States shall not seek civil penalties pursuant to Section 122(l) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of the Consent Decree.

81. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Consent Decree.

XXI. COVENANTS BY PLAINTIFF

82. In consideration of the actions and commitments that will be performed and the payments that will be made by the Settling Defendants under the terms of the Consent Decree, and except as specifically provided in Paragraphs 83, 84, and 86 of this Section, the United States covenants not to sue or to take administrative action against Settling Defendants pursuant to Sections 106 and 107(a) of CERCLA relating to the Hylebos Waterway Problem Area. Except with respect to future liability, these covenants not to sue shall take effect upon the Effective Date of this Consent Decree. With respect to future liability for the Mouth of the

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Hylebos Waterway Problem Area, these covenants shall take effect upon Certification of Completion of Remedial Action by EPA for the Mouth of the Hylebos Waterway Problem Area pursuant to Paragraph 47.b of Section XIV (Certification of Completion). With respect to future liability for the Head of the Hylebos Waterway Problem Area, these covenants shall take effect upon Certification of Completion of Remedial Action by EPA for the Head of the Hylebos Waterway Problem Area. These covenants are conditioned upon the satisfactory performance by Settling Defendants of their obligations under this Consent Decree. These covenants not to sue extend only to the Settling Defendants and do not extend to any other person.

83. United States' Pre-certification Reservations. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order seeking to compel Settling Defendants,

a. to perform further response actions relating to the Mouth of the Hylebos Waterway Problem Area or

b. to reimburse the United States for additional costs of response if, prior to Certification of Completion of the Remedial Action:

(1) conditions at the Mouth of the Hylebos Waterway Problem Area, previously unknown to EPA, are discovered, or

(2) information, previously unknown to EPA, is received, in whole or in part,

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1 and EPA determines that these previously unknown conditions or information together with any
 2 other relevant information indicates that the Remedial Action is not protective of human health
 3 or the environment.

4 84. United States' Post-certification Reservations. Notwithstanding any other
 5 provision of this Consent Decree, the United States reserves, after Certification of Completion of
 6 Remedial Action and this Consent Decree is without prejudice to, the right to institute
 7 proceedings in this action or in a new action, or to issue an administrative order seeking to
 8 compel Settling Defendants,

9
 10 a. to perform further response actions relating to the Mouth of the Hylebos
 11 Waterway Problem Area or

12 b. to reimburse the United States for additional costs of response if,
 13 subsequent to Certification of Completion of the Remedial Action:

14
 15 (1) conditions at the Mouth of the Hylebos Waterway Problem Area,
 16 previously unknown to EPA, are discovered, or

17 (2) information, previously unknown to EPA, is received, in whole or
 18 in part,

19
 20 and EPA determines that these previously unknown conditions or this information together with
 21 other relevant information indicate that the Remedial Action is not protective of human health or
 22 the environment.

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 24
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85. For purposes of Paragraph 83, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the date this Consent Decree is lodged as set forth in the Record of Decision, the administrative records supporting the Record of Decision, the July 1997 and August 2000 ESDs, and any EPA approved remedial design submittals generated by the Settling Defendants as of the date this Consent Decree is lodged. For purposes of Paragraph 84, the information and the conditions known to EPA shall include only that information and those conditions known to EPA as of the date of Certification of Completion of the Remedial Action as set forth in the Record of Decision, the administrative records supporting the Record of Decision and July, 1997 and August, 2000 ESDs, and any information received by EPA pursuant to the requirements of this Consent Decree prior to Certification of Completion of the Remedial Action.

86. General reservations of rights. The United States reserves, and this Consent Decree is without prejudice to, all rights against Settling Defendants with respect to all matters not expressly included within Plaintiff's covenant not to sue. Notwithstanding any other provision of this Consent Decree, the United States reserves all rights against Settling Defendants with respect to:

a. claims based on a failure by Settling Defendants to meet a requirement of this Consent Decree;

b. liability arising from the past, present, or future disposal, release, or threat of release of Waste Materials outside of the Hylebos Waterway Problem Area, including, but not limited to, any other Problem Area or Operable Unit in the CB/NT Site;

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c. future liability based upon the Settling Defendants' ownership or operation of property within the Hylebos Waterway Problem Area, or upon the Settling Defendants' transportation, treatment, storage, or disposal, or the arrangement for the transportation, treatment, storage, or disposal of Waste Material at or in connection with the Hylebos Waterway Problem Area, other than as provided in the ROD, the Work, or otherwise ordered by EPA, after signature of this Consent Decree by the Settling Defendants;

d. liability for hazardous substances buried at subsurface depths at the Hylebos Waterway Problem Area as of the Effective Date of this Consent Decree and are located within no action areas as designated in the August 2000 ESD which hazardous substances were released by Settling Defendants or their tenants or came to be located on property owned or operated by Settling Defendants and, in EPA's discretion, require response action;

e. liability for response actions in the Head of the Hylebos Waterway Problem Area or Occidental Site if other parties do not perform required response actions under an Order or a consent decree;

f. with respect to all Settling Defendants other than the Port of Tacoma, liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

g. criminal liability;

h. liability for violations of federal or state law which occur during or after implementation of the Remedial Action at the Hylebos Waterway; and

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i. liability, prior to Certification of Completion of the Remedial Action at the Mouth of the Hylebos Problem Area, for additional response actions that EPA determines are necessary to achieve Performance Standards, but that cannot be required pursuant to Paragraph 12 (Modification of the SOW or Related Work Plans);

87. Work Takeover. In the event EPA determines that Settling Defendants have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, after providing Settling Defendants one opportunity to cure and after notice to Settling Defendants, EPA may assume the performance of all or any portions of the Work as EPA determines necessary. In the event EPA determines that Settling Defendants are implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary without notice or opportunity to cure to Settling Defendants. Settling Defendants may invoke the procedures set forth in Section XIX (Dispute Resolution), Paragraph 67, to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Settling Defendants shall pay pursuant to Section XVI (Reimbursement of Response Costs).

88. Notwithstanding any other provision of this Consent Decree, the United States retains all authority and reserves all rights to take any and all response actions authorized by law.

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XXII. COVENANTS BY SETTLING DEFENDANTS

89. Covenant Not to Sue by Settling Defendants. Subject to the reservations in Paragraph 90, Settling Defendants hereby covenant not to sue and agree not to assert any claims or causes of action against the United States with respect to the Hylebos Waterway Problem Area or this Consent Decree, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund (established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507) through CERCLA Sections 106(b)(2), 107, 111, 112, 113 or any other provision of law;

b. any claims against the United States, including any department, agency or instrumentality of the United States under CERCLA Sections 107 or 113 related to the Hylebos Waterway Problem Area; or

c. any claims arising out of response activities at the Hylebos Waterway Problem Area, including claims based on EPA's selection of response actions, oversight of response activities or approval of plans for such activities, including any claim under the United States Constitution, the Washington State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

d. any direct or indirect claim for disbursement from the Hylebos Waterway Problem Areas Special Account, except as expressly provided in Paragraphs 54, 55 and 56 of this Consent Decree.

90. The Settling Defendants reserve, and this Consent Decree is without prejudice to:

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a. claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response actions, or the oversight or approval of the Settling Defendants' plans or activities. The foregoing applies only to claims which are brought pursuant to any statute other than CERCLA and for which the waiver of sovereign immunity is found in a statute other than CERCLA; and

b. contribution claims against the United States arising out of an action initiated under 42 U.S.C. § 9607(f) for natural resource damages pertaining to the Hylebos Waterway Site.

91. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XXIII. EFFECT OF SETTLEMENT; CONTRIBUTION PROTECTION

92. Nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this decree

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1 may have under applicable law. Each of the Parties expressly reserves any and all rights
 2 (including, but not limited to, any right to contribution), defenses, claims, demands, and causes
 3 of action which each Party may have with respect to any matter, transaction, or occurrence
 4 relating in any way to the CB/NT Site against any person not a Party hereto nor a Party to that
 5 consent decree related to remedial action at the Head of the Hylebos Waterway Problem Area.

6
 7 93. The Parties agree, and by entering this Consent Decree this Court finds, that the
 8 Settling Defendants are entitled, as of the Effective Date, to protection from contribution actions
 9 or claims as provided by CERCLA Section 113(f)(2), 42 U.S.C. § 9613(f)(2) for matters
 10 addressed in this Consent Decree. "Matters Addressed" in this Consent Decree include all
 11 response actions taken or to be taken, and all response costs incurred or to be incurred by the
 12 United States, the Settling Defendants, the parties implementing remedial design and remedial
 13 action in the Head of the Hylebos Waterway or any other person with respect to the Hylebos
 14 Waterway Problem Area. Matters Addressed shall not include those response costs or response
 15 actions as to which the United States has reserved its rights under this Consent Decree, in the
 16 event that the United States asserts such rights against Settling Defendants of this Consent
 17 Decree.

18 94. The Settling Defendants agree that with respect to any suit or claim for
 19 contribution brought by them for matters related to this Consent Decree they will notify the
 20 United States in writing no later than sixty (60) days prior to the initiation of such suit or claim.

21 95. The Settling Defendants also agree that with respect to any suit or claim for
 22 contribution brought against them for matters related to this Consent Decree they will notify in
 23 writing the United States within ten (10) days of service of the complaint on them. In addition,
 24

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1 Settling Defendants shall notify the United States within ten (10) days of service or receipt of
 2 any Motion for Summary Judgment and within ten (10) days of receipt of any order from a court
 3 setting a case for trial.

4
 5 96. In any subsequent administrative or judicial proceeding initiated by the United
 6 States for injunctive relief, recovery of response costs, or other appropriate relief relating to the
 7 CB/NT Site or Hylebos Waterway Problem Area, Settling Defendants shall not assert, and may
 8 not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral
 9 estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the
 10 claims raised by the United States in the subsequent proceeding were or should have been
 11 brought in the instant case; provided, however, that nothing in this Paragraph affects the
 12 enforceability of the covenants not to sue set forth in Section XXI (Covenants by Plaintiff).

13 XXIV. ACCESS TO INFORMATION

14
 15 97. Until ten (10) years after the Settling Defendants' receipt of EPA's notification
 16 pursuant to Paragraph 48 of Section XIV (Certification of Completion of the Work), Settling
 17 Defendants shall provide to EPA, upon request, copies of all documents and information in
 18 hardcopy or in electronic format or other format requested by EPA within their possession or
 19 control or that of their contractors or agents relating to activities at the Mouth of the Hylebos
 20 Waterway Problem Area or to the implementation of this Consent Decree, including, but not
 21 limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts,
 22 reports, sample traffic routing, correspondence, or other documents or information (printed or
 23 electronic) related to the Work. Notwithstanding the time frame provided in the preceding
 24 sentence, Settling Defendants shall, upon request, provide copies of all documents and

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1 information in hardcopy or in electronic format or other format requested by EPA within their
 2 possession or control or within the possession or control of their contractors, consultants or
 3 agents relating to long-term operation, maintenance and monitoring and other activities that may
 4 continue beyond Certification of Completion of the Remedial Action under this Consent Decree.
 5 Settling Defendants shall also make available to EPA, for purposes of investigation, information
 6 gathering, or testimony, their employees, agents, or representatives with knowledge of relevant
 7 facts concerning the performance of the Work.

8
 9 98. Business Confidential and Privileged Documents.

10 a. Settling Defendants may assert business confidentiality claims covering
 11 part or all of the documents or information submitted to Plaintiff under this Consent Decree to
 12 the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C.
 13 § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential
 14 by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of
 15 confidentiality accompanies documents or information when they are submitted to EPA, or if
 16 EPA has notified Settling Defendants that the documents or information are not confidential
 17 under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public
 18 may be given access to such documents or information without further notice to Settling
 19 Defendants.

20
 21 b. The Settling Defendants may assert that certain documents, records and
 22 other information are privileged under the attorney-client privilege or any other privilege
 23 recognized by federal law. If the Settling Defendants assert such a privilege in lieu of providing
 24 documents, they shall provide the Plaintiff with the following: (1) the title of the document,

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record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the privilege asserted by Settling Defendants. However, no documents, reports or other information created or generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds that they are privileged.

99. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Hylebos Waterway Problem Area.

XXV. RETENTION OF RECORDS

100. Until ten (10) years after the Settling Defendants' receipt of EPA's notification pursuant to Paragraph 48 of Section XIV (Certification of Completion of the Work), each Settling Defendant shall preserve and retain all non-identical copies of records and documents (including records and documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to its liability under CERCLA or the liability of any other person under CERCLA with respect to the Hylebos Waterway Problem Area. Each Settling Defendant must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above all non-identical copies of the last draft or final version of any documents or records (including documents or records in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work, provided, however, that each Settling Defendant (and its

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1 contractors and agents) must retain, in addition, copies of all data generated during the
 2 performance of the Work and not contained in the aforementioned documents required to be
 3 retained. Each of the above record retention requirements shall apply regardless of any
 4 corporate retention policy to the contrary.

5 101. At the conclusion of this document retention period, Settling Defendants shall
 6 notify the United States at least 90 days prior to the destruction of any such records or
 7 documents, and, upon request by the United States, Settling Defendants shall deliver any such
 8 records or documents to EPA. The Settling Defendants may assert that certain documents,
 9 records and other information are privileged under the attorney-client privilege or any other
 10 privilege recognized by federal law. If the Settling Defendants assert such a privilege, they shall
 11 provide the Plaintiffs with the following: (1) the title of the document, record, or information;
 12 (2) the date of the document, record, or information; (3) the name and title of the author of the
 13 document, record, or information; (4) the name and title of each addressee and recipient; (5) a
 14 description of the subject of the document, record, or information; and (6) the privilege asserted
 15 by Settling Defendants. However, no documents, reports or other information created or
 16 generated pursuant to the requirements of the Consent Decree shall be withheld on the grounds
 17 that they are privileged.

18
 19 102. Each Settling Defendant hereby certifies individually that, to the best of its
 20 knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed
 21 or otherwise disposed of any records, documents or other information (other than identical
 22 copies) relating to its potential liability regarding the Hylebos Waterway Problem Area since
 23 notification of potential liability by the United States or the filing of suit against it regarding the
 24 Hylebos Waterway Problem Area and that it has fully complied with any and all EPA requests

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for information pursuant to Section 104(e) and 122(e) of CERCLA, 42 U.S.C. 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. 6927.

XXVI. NOTICES AND SUBMISSIONS

103. Whenever, under the terms of this Consent Decree, written notice is required to be given or a report or other document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. All notices and submissions shall be considered effective upon receipt, unless otherwise provided. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA and the Settling Defendants, respectively.

As to the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Re: DJ # _____

Chief, Environmental Defense Section
United States Department of Justice
Environment and Natural Resources Division
P.O. Box 23986
Washington D.C. 20026-3986
Re: DJ # _____

and

Director, Environmental Cleanup Office
United States Environmental Protection Agency
Region 10
ECL - 113
1200 Sixth Avenue

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1 Seattle, Washington 98101

2 As to EPA:

3 Jonathan Williams
4 EPA Project Coordinator
5 United States Environmental Protection Agency
6 Region 10
7 ECL - 111
8 1200 Sixth Avenue
9 Seattle, Washington 98101

10 As to the Regional Financial Management Officer:

11 Ruth Broome
12 Office of Management Programs
13 U.S. Environmental Protection Agency
14 OMP-146
15 1200 Sixth Avenue
16 Seattle, Washington 98101

17 As to the Settling Defendants:

18 Suzanne Dudziak
19 Port of Tacoma
20 P.O. Box 1837
21 Tacoma, Washington 98401-1837

22 Pioneer Americas LLC
23 c/o Sam Chamberlain
24 700 Louisiana, Suite 4300
25 Houston, Texas 77002

26 Occidental Chemical Corporation
27 Mariana Properties, Inc.
28 c/o F. Allen Meek, Jr.
Glenn Springs Holdings, Inc.
2480 Fortune Drive, Suite 300
Lexington, Kentucky 40509

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1 XXVII. EFFECTIVE DATE

2 104. The effective date of this Consent Decree shall be the date upon which this
3 Consent Decree is entered by the Court, except as otherwise provided herein.
4

5 XXVIII. RETENTION OF JURISDICTION

6 105. This Court retains jurisdiction over both the subject matter of this Consent Decree
7 and the Settling Defendants for the duration of the performance of the terms and provisions of
8 this Consent Decree for the purpose of enabling any of the Parties to apply to the Court at any
9 time for such further order, direction, and relief as may be necessary or appropriate for the
10 construction or modification of this Consent Decree, or to effectuate or enforce compliance with
11 its terms, or to resolve disputes in accordance with Section XIX (Dispute Resolution) hereof.
12

13 XXIX. APPENDICES

14 106. The following appendices are attached to and incorporated into this Consent
15 Decree:
16

17 "Appendix A" is the SOW.

18 "Appendix B" is the map of the Hylebos Waterway Problem Area.
19

20 "Appendix C" is the map of the Mouth of the Hylebos Problem Area and the Occidental
21 Site.
22

23
24
25 CONSENT DECREE
26 Commencement Bay Nearshore/Tideflats
27 Superfund Site
28 Mouth of the Hylebos Waterway Problem Area

United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

1 XXX. COMMUNITY RELATIONS

2 107. Settling Defendants shall propose to EPA their participation in the community
3 relations plan developed by EPA. EPA will determine the participation role for the Settling
4 Defendants under the Plan. Settling Defendants shall also cooperate with EPA in providing
5 information regarding the Work to the public. As requested by EPA, Settling Defendants shall
6 participate in the preparation of such information for dissemination to the public and in public
7 meetings which may be held or sponsored by EPA to explain activities at or relating to the
8 Mouth of the Hylebos Problem Area.

9
10 XXXI. MODIFICATION

11 108. Schedules specified in this Consent Decree for completion of the Work may be
12 modified by agreement of EPA and the Settling Defendants. All such modifications shall be
13 made in writing.

14
15 109. Except as provided in Paragraph 12 ("Modification of the SOW or related Work
16 Plans"), no material modifications shall be made to the SOW without written notification to and
17 written approval of the United States, Settling Defendants, and the Court, if such modifications
18 fundamentally alter the basic features of the selected remedy within the meaning of 40 C.F.R.
19 300.435(c)(2)(B)(ii). Prior to providing its approval to any modification, the United States will
20 provide the State with a reasonable opportunity to review and comment on the proposed
21 modification. Modifications to the SOW that do not materially alter that document, or material
22 modifications to the SOW that do not fundamentally alter the basic features of the selected
23 remedy within the meaning of 40 C.F.R. 300.435(c)(2)(B)(ii), may be made by written
24 agreement between EPA and the Settling Defendants.

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Washington, D.C. 20044

1 110. Nothing in this Decree shall be deemed to alter the Court's power to enforce,
2 supervise or approve modifications to this Consent Decree.

3 XXXII. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT
4

5 111. This Consent Decree shall be lodged with the Court for a period of not less than
6 thirty (30) days for public notice and comment in accordance with Section 122(d)(2) of
7 CERCLA, 42 U.S.C. § 9622(d)(2), and 28 C.F.R. § 50.7. The United States reserves the right to
8 withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or
9 considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate.
10 Settling Defendants consent to the entry of this Consent Decree without further notice.

11 112. By executing this Consent Decree, and taking action under this Consent Decree,
12 Settling Defendants do not intend to amend or alter any previously existing contractual
13 agreement between or among any of the Settling Defendants. By executing this Consent Decree,
14 and taking action under this Consent Decree, Settling Defendants and the United States do not
15 intend to amend or alter any previously existing contractual agreement between or among any of
16 the Settling Defendants and the United States other than the HCC AOC. Nothing in this Consent
17 Decree is intended to alter the rights or obligations of the parties to the Cash-Out Consent
18 Decree.
19

20 113. If for any reason the Court should decline to approve this Consent Decree in the
21 form presented, this agreement is voidable at the sole discretion of any Party and the terms of the
22 agreement may not be used as evidence in any litigation between the Parties.
23
24

25 CONSENT DECREE
26 Commencement Bay Nearshore/Tideflats
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Washington, D.C. 20044

XXXIII. SIGNATORIES/SERVICE

114. Each undersigned representative of a Settling Defendant to this Consent Decree and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind such Party to this document.

115. Each Settling Defendant hereby agrees not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree unless the United States has notified the Settling Defendants in writing that it no longer supports entry of the Consent Decree.

116. Each Settling Defendant shall identify, on the attached signature page, the name, address and telephone number of an agent who is authorized to accept service of process by mail on behalf of that Party with respect to all matters arising under or relating to this Consent Decree. Settling Defendants hereby agree to accept service in that manner and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including, but not limited to, service of a summons. Settling Defendants need not file an answer to the complaint in this action unless or until the court expressly declines to enter this Consent Decree.

CONSENT DECREE
Commencement Bay Nearshore/Tideflats
Superfund Site
Mouth of the Hylebos Waterway Problem Area

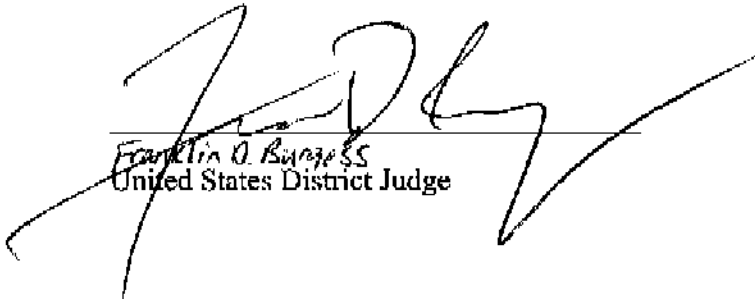
United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

XXXIV. FINAL JUDGMENT

117. This Consent Decree and its appendices constitute the final, complete, and exclusive agreement and understanding among the parties with respect to the settlement embodied in the Consent Decree. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree.

118. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment between and among the United States and the Settling Defendants. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED THIS 15 DAY OF March, 2005.



Franklin D. Burroughs
United States District Judge

CONSENT DECREE
Commencement Bay Nearshore/Tideflats
Superfund Site
Mouth of the Hylebos Waterway Problem Area

United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
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Washington, D.C. 20044

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SO ORDERED THIS __ DAY OF ____, 20__.

United States District Judge

CONSENT DECREE
Commencement Bay Nearshore/Tideflats
Superfund Site
Mouth of the Hylebos Waterway Problem Area

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United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

1 THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.
2 Port of Tacoma, et al., relating to the Mouth Hylebos Waterway Problem Area within the
3 Commencement Bay Nearshore/Tideflats Superfund Site.

4
5 **FOR THE UNITED STATES OF AMERICA**

6
7 1.25.05
8 Date

Tom Sansonetti
Thomas L. Sansonetti
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
Washington, D.C. 20530

11
12
13 Date

Michael McNulty
Michael J. McNulty
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611


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25 **CONSENT DECREE**
26 Commencement Bay Nearshore/Tideflats
27 Superfund Site
28 Mouth of the Hylebos Waterway Problem Area

United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. Port of Tacoma, et al., relating to the Mouth Hylebos Waterway Problem Area within the Commencement Bay Nearshore/Tideflats Superfund Site.

Pioneer Americas LLC

1/21/2005
Date

Signature: 
Name (print): KENT R. STEPHENSON
Title: VICE PRESIDENT & GENERAL COUNSEL
Address: PIONEER AMERICAS LLC
700 LOUISIANA, SUITE 4300
HOUSTON, TX 77002

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name (print): KENT R. STEPHENSON
Title: VICE PRESIDENT & GENERAL COUNSEL
Address: PIONEER AMERICAS LLC
700 LOUISIANA, SUITE 4300
HOUSTON, TX 77002
Ph. Number: 713-570-3257

*/ A separate signature page must be signed by each corporation, individual or other legal entity that is settling with the United States.

CONSENT DECREE
Commencement Bay Nearshore/Tideflats
Superfund Site
Mouth of the Hylebos Waterway Problem Area

United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. Port of Tacoma, et al., relating to the Mouth Hylebos Waterway Problem Area within the Commencement Bay Nearshore/Tideflats Superfund Site.

FOR Port of Tacoma
COMPANY, INC.*/

1/13/05
Date

Signature: [Signature]
Name (print): Timothy J. Farrell
Title: Port of Tacoma Executive Director
Address: Port of Tacoma
One Sitcum Plaza
Tacoma, WA 98421

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name (print): Andy Michels
Title: Risk Manager
Address: Port of Tacoma
One Sitcum Plaza, Tacoma 98421
PO Box 1837, Tacoma, WA 98401
Ph. Number: 253-383-5841

*/ A separate signature page must be signed by each corporation, individual or other legal entity that is settling with the United States.

CONSENT DECREE
Commencement Bay Nearshore/Tideflats
Superfund Site
Mouth of the Hylebos Waterway Problem Area

United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

93-A

1 THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.
2 Port of Tacoma, et al., relating to the Mouth Hylebos Waterway Problem Area within the
3 Commencement Bay Nearshore/Tideflats Superfund Site.

4 FOR OCCIDENTAL CHEMICAL CORPORATION

5
6
7 14 JANUARY 2005
8 Date

Signature: [Signature]
Name (print): JO ELLEN DRISKO
Title: VICE-PRESIDENT
Address: 2480 Fortune Dr., Suite 300
Lexington, KY 40509

10
11
12 Agent Authorized to Accept Service on Behalf of Above-signed Party:

13
14
15 Name (print): SCOTT A. KING
16 Title: VICE PRESIDENT & GENERAL COUNSEL
17 Address: OCCIDENTAL CHEMICAL CORPORATION
LEGAL DEPARTMENT OCCIDENTAL TOWER
5005 LBJ FREEWAY
DALLAS, TEXAS 75244
18 TELEPHONE: 972-404-3800

19
20 */ A separate signature page must be signed by each corporation, individual or other legal entity
21 that is settling with the United States.


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25 CONSENT DECREE
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United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
93-B Washington, D.C. 20044

1 THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.
2 Port of Tacoma, et al., relating to the Mouth Hylebos Waterway Problem Area within the
3 Commencement Bay Nearshore/Tideflats Superfund Site.

4 FOR MARIANA PROPERTIES, INC.

5
6
7 14 JANUARY 2005
8 Date

Signature: 
Name (print): ELLEN DRISKO
Title: PRESIDENT
Address: 2480 Fortune Dr., Suite 300
Lexington, KY 40509

9
10
11
12 Agent Authorized to Accept Service on Behalf of Above-signed Party:

13
14
15 Name (print): SCOTT A. KING
16 Title: VICE-PRESIDENT & GENERAL COUNSEL
17 Address: OCCIDENTAL CHEMICAL CORPORATION
LEGAL DEPARTMENT, OCCIDENTAL TOWER
5005 LBJ FREEWAY
DALLAS, TEXAS 75244
18
19 TELEPHONE: 972-404-3800


20 */ A separate signature page must be signed by each corporation, individual or other legal entity
21 that is settling with the United States.
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25 CONSENT DECREE
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United States Department of Justice
Environment & Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
93-C Washington, D.C. 20044

1 THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v.
2 Port of Tacoma, et al., relating to the Mouth Hylebos Waterway Problem Area within the
3 Commencement Bay Nearshore/Tideflats Superfund Site.

4
5 1/14/05
6 Date


Ronald A. Kreizenbeck
Acting Regional Administrator, Region 10
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

10 1/14/05
11 Date


Ted Yackulic
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region 10
ORC-158
1200 Sixth Avenue
Seattle, Washington 98101

25 CONSENT DECREE
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Environmental Enforcement Section
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Ben Franklin Station
94 Washington, D.C. 20044

APPENDIX A

**STATEMENT OF WORK
FOR THE CONSENT DECREE
REMEDIAL DESIGN, REMEDIAL ACTION & LONG-TERM MONITORING**

**MOUTH OF HYLEBOS WATERWAY PROBLEM AREA:
SEGMENTS 3, 4 AND 5
AND PORTIONS OF SEGMENT 1**

**COMMENCEMENT BAY NEARSHORE/TIDEFLATS SUPERFUND SITE
TACOMA, WASHINGTON**

APPENDIX A

Appendix A
Mouth of Hylebos Waterway SOW

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Appendix A
Mouth of Hylebos Waterway SOW

I. PURPOSE

The purpose of this Statement of Work (SOW) is to set forth requirements for implementation of the remedial design and remedial action activities that the Settling Defendants are required to perform under the Consent Decree (CD) for Remedial Design and Remedial Action (RD/RA), addressing Segments 3, 4, and 5 and portions of Segment 1 of the Hylebos Waterway (herein collectively referred to as the “Mouth of Hylebos Waterway Problem Area,” further described below). This SOW also addresses all activities associated with the construction, filling, completion, operation, and maintenance of the Nearshore Confined Disposal (NCD) Facility located at the Port of Tacoma’s “Slip 1,” as well as the related habitat mitigation activities at the “Slip 5” and “Clear Creek” sites. This SOW does not address activities in and/or adjacent to Segment 5 of the Hylebos Waterway that are being performed under the Occidental Site Administrative Order on Consent (AOC) as amended January 2005. However, this SOW does address the placement and confinement of treated Area 5106 Sediment and other Occidental Site sediments in the NCD Facility.

This SOW is consistent with the Record of Decision (ROD), signed by the Regional Administrator of the United States Environmental Protection Agency (EPA), Region 10 on September 30, 1989, for the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund Site (the CB/NT Site), and the Explanation of Significant Difference (ESD) dated July 28, 1997 (1997 ESD) and a separate ESD dated August 3, 2000 (2000 ESD). The 2000 ESD specifies the cleanup plan, various performance criteria and the disposal sites for the Hylebos Waterway Problem Areas, among other CB/NT problem areas. The 1997 ESD modified the sediment cleanup standard for polychlorinated biphenyls (PCBs). This SOW is Appendix A to the above-referenced CD.

In addition to outlining the requirements for implementation of the remedial design and remedial action, this SOW provides a summary of all of the work previously completed under EPA oversight pursuant to the Unilateral Administrative Order for Remedial Design and Remedial Action issued to the Settling Defendants Port of Tacoma and Occidental Chemical Corporation (EPA Docket No. CERCLA 10-2002-0064), including references to documentation submitted by the Settling Defendants and approvals by EPA. All work completed by the Settling Defendants to date, is summarized in Section V of this SOW. All such work approved by EPA is incorporated into this SOW by this reference.

Appendix A
Mouth of Hylebos Waterway SOW

The Mouth of Hylebos Waterway Problem Area, located within the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund site in Pierce County, Washington is shown on Figure 1. Using the delineation of the Hylebos Waterway segments developed during the Hylebos Cleanup Committee's pre-remedial design activities, Segment 5 includes the area within the Hylebos Waterway north of East Eleventh Street Bridge. Segments 3 and 4 are located south of East Eleventh Street Bridge and north of or adjacent to the former Murray Pacific facility, including SMA 302, as depicted in the 2000 ESD. Segment 1 of the Hylebos Waterway is depicted on Figure 1 and includes the Upper Turning Basin at the southernmost end of the waterway and portions of the neck of the waterway. This SOW includes only those portions of Segment 1 designated as Sediment Management Areas (SMA) 103 and 123.

In conducting the work specified in this SOW, the Settling Defendants shall follow:

- The 1989 ROD as modified by the 1997 and 2000 ESDs;
- Approved pre-remedial design deliverables;
- This SOW;
- Approved Remedial Design (RD) and Remedial Action (RA) Work Plans; and
- EPA Superfund Remedial Design and Remedial Action Guidance applicable to submitting deliverables for designing and implementing the remedial action at the Mouth of the Hylebos Waterway Problem Area of the CB/NT Site.

Disposal sites for contaminated sediments were identified in the 2000 ESD which provided the Settling Defendants with suitable locations for sediment waste disposal. The Settling Defendants have selected the Blair Waterway Slip 1 as the disposal site for Mouth of the Hylebos Waterway Problem Area, treated Area 5106 sediments, and other Occidental Site sediments requiring confined disposal, subject to meeting technical criteria for disposal at the Slip 1 NCD. The Settling Defendants will utilize the Puget Sound Dredge Disposal Analysis (PSDDA) open-water disposal site for dredged sediment that does not require confined disposal and meets the appropriate requirements of the PSDDA site, including acquisition of all necessary permits.

One objective of the Mouth of Hylebos Waterway Problem Area project was to maximize remedial action that could reasonably occur in the 2002-2003 in-water construction season. Therefore, the Settling Defendants initiated pier demolition in Slip 1 and Stage I construction of the NCD Facility containment berm in 2002-2003 (See Sections V and VI). Additionally, the

Appendix A
Mouth of Hylebos Waterway SOW

Settling Defendants prepared an RD Work Plan which proposed an implementation strategy that identified additional remedial action elements to be accomplished in 2002. The RD Work Plan also presented a generalized construction schedule for the remainder of the project. All such activities that have been approved by EPA are incorporated into this SOW by this reference.

The purpose of this SOW is to describe work known to be necessary to achieve the CB/NT Site cleanup objectives, including the Sediment Quality Objectives (SQOs). If EPA determines at some future date that additional work is needed to achieve cleanup EPA shall amend this SOW consistent with the CD.

II. DESCRIPTION OF REMEDIAL ACTION

A. Key Elements of CB/NT ROD

The CB/NT ROD selected a remedy comprised of the following five (5) key elements to address contaminated sediments in the waterways of the CB/NT site:

1. Site use restrictions (now commonly referred to as institutional controls);
2. Source control;
3. Natural recovery;
4. Sediment remedial action (i.e., confinement); and
5. Monitoring.

Four (4) of the five (5) primary elements of the CB/NT ROD will be implemented under this SOW including site use restrictions, natural recovery (including the potential for active sediment remediation if natural recovery does not occur as required), sediment remedial action (including habitat mitigation), and monitoring. Source control of ongoing sources of hazardous substances to the Hylebos Waterway problem areas is not an anticipated element of this SOW. The Washington State Department of Ecology (Ecology) has been designated as the lead agency for upland source control at the CB/NT Site. Ecology issued its Milestone 5 report, the final administrative milestone for source control, documenting completion of activities for Hylebos Waterway on June 14, 2000 (Ecology 2000). Since then, EPA and Ecology have determined that the Milestone 5 report mistakenly assumed that all sources of contamination at the Occidental Site were adequately characterized and contained. Additional Occidental Site characterization, remedial alternatives analyses, and integrated (upland/sediment) remedial design are covered

Appendix A
Mouth of Hylebos Waterway SOW

under a separate AOC amendment of January 2005. The defendants accept Ecology's (2000) determination that source control is substantively complete and effective in preventing future sediment contamination. This SOW anticipates that remedial design and remedial action will not need to be accompanied by further upland source control actions. If additional source control actions are needed to conduct or protect RD/RA, EPA may amend this SOW accordingly. Monitoring will be implemented under this SOW (Task VI) to assist EPA and Ecology in verifying source control effectiveness. As necessary, monitoring may include ground water and subsurface sediments that have a significant potential to contaminate the biologically active zone. Specific monitoring requirements will be set forth in the Operations, Maintenance, and Monitoring Plan (OMMP) described in Task 6 of Section V of this SOW.

B. Cleanup Objectives

The cleanup objectives for the remedial action, as described in Section 10 of the 1989 ROD, state, "the selected remedy is to achieve acceptable sediment quality in a reasonable time frame" (CB/NT ROD, p. 97). Habitat function and enhancement of fisheries resources are also project cleanup objectives.

1. Acceptable Sediment Quality in a Reasonable Time Frame

"Acceptable sediment quality" is defined as "the absence of acute or chronic adverse effects on biological resources or significant human health risk" (CB/NT ROD, p.62). The ROD designated biological test requirements and associated sediment chemical concentrations referred to as sediment quality objectives (SQOs) to attain cleanup objectives for the CB/NT Site. The SQO for polychlorinated biphenyls (PCBs) was subsequently updated in a 1997 ESD.

SQOs and satisfactory biological toxicity test results are performance standards for the CB/NT site. SQOs for individual chemicals specified in the ROD, as amended in the 1997 ESD, are provided in Table 1 of this SOW. In addition to comparing sediment concentrations with SQOs, the Settling Defendants may elect, with EPA approval, to perform appropriate biological toxicity tests for all chemicals except PCBs to demonstrate the absence of biological effects predicted by the SQOs. Toxicity testing may also be used to assess the suitability of sediments for open-water disposal when chemical data predict that biological effects might be present. Typical biological test criteria are provided in Table 1 to this SOW.

Appendix A
Mouth of Hylebos Waterway SOW

A “reasonable time frame” incorporates the ROD’s selection of natural recovery for sediments in the CB/NT site that are minimally contaminated and are predicted to naturally recover within 10 years from implementation of the remedial action in any given SMA. The Pre-Remedial Design Evaluation (PRDE) Report identified a number of different potential natural recovery areas, including areas within the Mouth of Hylebos Waterway Problem Area. However, since these identified natural recovery areas overlap with subsurface chemistry, the Settling Defendants may address some or all of these areas through active remediation rather than rely on natural recovery and long-term monitoring. Performance monitoring of natural recovery areas is a requirement of this SOW and is discussed in more detail in Section III below.

Except for natural recovery areas, the time frame for achieving SQOs or satisfactory biological toxicity test results shall be the end of construction of individual elements of the remedial action, as detailed in the Construction Quality Assurance Plan(s) (CQAP) and OMMP(s), as appropriate, to be approved by EPA under this SOW. Determining whether the sediment quality cleanup objectives have been achieved will be verified through a comparison of post-remedial sediment chemistry with SQOs at discrete locations and/or through the results of biological testing. In addition, cleanup objectives will be verified with a statistical comparison of performance monitoring data with SQOs, surrounding surface chemistry, and Sediment Remedial Action Levels (SRALs). The sediment quality monitoring and decision framework will be detailed in the OMMP(s).

2. Habitat Function and Enhancement of Fisheries Resources

Habitat function and enhancement of fisheries resources have also been incorporated as part of the overall project cleanup objectives. For example, the physical characteristics and placement of material used for capping contaminated sediments in the marine environment will be required to provide a suitable substrate and habitat for aquatic organisms that may utilize that environment.

Consideration of habitat function and enhancement of fisheries resources is required under this SOW to meet cleanup objectives and comply with ARARs, including the Clean Water Act, Endangered Species Act, and the Puyallup Tribe of Indians Settlement Act of 1989. Remedial designs and actions will be performed consistent with biological assessments and biological opinions.

Appendix A
Mouth of Hylebos Waterway SOW

C. Mouth of Hylebos Waterway Problem Area

The 1989 ROD and 2000 ESD specified confinement as a primary component of the sediment cleanup remedy, and identified in-place capping and nearshore disposal as practicable options for portions of the Hylebos Waterway cleanup, including the Mouth of Hylebos Waterway Problem Area. In-place capping, which involves physical containment and chemical isolation of contaminated sediment by placing clean material on top of existing substrate, will be used to remediate nearshore embankment areas in the areas where removal is not practicable. Nearshore disposal involves removal (i.e., dredging) of sediment followed by confined disposal in the nearshore environment. Dredging will occur largely within open access areas of the waterway. Dredged sediment not suitable for open-water disposal or beneficial reuse will be confined in the Blair Waterway Slip 1 nearshore confined disposal facility (the “NCD Facility”).

Approximately 36,000 cubic yards of sediment within Area 5106 depicted on Figure 3, has been dredged and treated pursuant to a separate consent decree prior to placement and confinement in the NCD Facility. However, this SOW requires coordination with the Area 5106 Project and other aspects of the remaining Occidental Site remediation as it relates to placement and confinement of treated and untreated Occidental Site sediments in the Slip 1 NCD Facility, subject to meeting technical criteria for disposal at the Slip 1 NCD. The SMAs shown in Figures 2 and 3, and described in more detail in subsequent sections of this SOW, represent the cleanup plan of the 2000 ESD, which is subject to remedial design as approved by EPA and remedial action under EPA oversight under this SOW.

1. PSDDA Testing and Disposal

EPA’s 2000 ESD encouraged open-water disposal at the PSDDA site or beneficial reuse of qualifying sediment. Sediments determined to be suitable for PSDDA disposal or beneficial reuse will be managed under existing authorities of the Puget Sound Dredge Material Management Program (DMMP).

In 2000, the Settling Defendants performed PSDDA testing of dredged material management units (DMMUs) in various areas of the Mouth of Hylebos Waterway Problem Area, under the supervision of the DMMP. Results of the PSDDA sampling and analysis, including confirmatory biological testing, are provided in the Hylebos Waterway Phase I PSDDA Suitability Report (Anchor 2000), approved by the DMMP in 2001. Suitability determinations

Appendix A
Mouth of Hylebos Waterway SOW

are summarized on Figure 3. Those DMMUs that comply with PSDDA open-water disposal or beneficial reuse criteria have been or will be managed through the DMMP and disposed of at an open-water disposal site permitted by the DMMP agencies. However, all design and dredging of material suitable for open-water disposal will be reviewed and approved by EPA as part of this SOW. This is being done to accomplish a complete cleanup of the Mouth of Hylebos Waterway Problem Area, and to ensure that only those sediments requiring confined disposal are contained in the NCD Facility. Activities that have been approved by EPA are incorporated into this SOW by this reference.

2. Blair Slip 1 Nearshore Confined Disposal Facility (“NCD Facility”)

The Blair Slip 1 NCD Facility will be used as the disposal site for dredged material removed from the Mouth of Hylebos Waterway Problem Area, including the Occidental Site, that requires confinement, as well as for material to be addressed by Settling Defendants and/or other parties from other locations, subject to meeting technical criteria for disposal at the Slip 1 NCD. Consistent with the 2000 ESD, the design of the NCD Facility includes the following elements:

- a) Demolition of structures adjacent to and within Slip 1.
- b) Construction of a berm across the face of Slip 1.
- c) Placement and confinement in the NCD Facility of dredged material removed from the Hylebos Waterway Problem Area requiring confined disposal, as well as placement and confinement of material to be addressed by Settling Defendants and/or other parties from other locations, as designated by the Settling Defendants and as approved by EPA. Such material will include approximately 36,000 cubic yards (cy) of treated sediment from Area 5106 placed by Occidental Chemical Corporation, approximately 100,000 cy of dredged material from the Middle Waterway placed by the Middle Waterway Action Committee (MWAC), approximately 10,000 cy placed by Manke Lumber from the Head of the Hylebos Waterway, and may include other material. Additional material from areas outside of the CB/NT Site may be placed and confined in the NCD Facility subject to receipt by the Settling Defendants of all necessary government approvals. However, placement of non-CB/NT material must be compatible with timely completion of the Hylebos Waterway cleanup. Material requiring confined disposal shall be placed at or below elevation +9 feet mean lower low water (MLLW) where it will remain in a saturated state.

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- d) Placement of a cap from the top of the confined material to the ground surface, which will include an impervious cover (asphalt concrete pavement) to provide water quality protection.
- d) The NCD Facility will be designed, at a minimum, to accommodate all material dredged under this SOW from the Mouth of Hylebos Waterway Problem Area (other than dredged material approved for PSDDA disposal). The NCD Facility will also be designed to include the material from other sources including treated and untreated sediment from Area 5106, other Occidental Site sediments, Middle Waterway sediment, and Manke Lumber sediment, as agreed to between Occidental Chemical Corporation, the Port of Tacoma, and the other pertinent parties.

At the time of this writing, structures adjacent to and within Slip 1 have been demolished and the Slip 1 NCD Facility containment berm has been constructed to elevation 14 feet (MLLW) in two separate stages of construction, timed to allow strength gain of the underlying soft foundation soils. In accordance with the requirements outlined in Task 3 of Section IV of this SOW, the Settling Defendants submitted an RA Work Plan for the structure demolition in Slip 1 on July 1, 2002, which received EPA approval on July 23, 2002. The Settling Defendants also submitted an RA Work Plan for the Stage I Berm construction on August 30, 2002, which was approved by EPA on September 20, 2002. In addition, the Settling Defendants submitted an RA Work Plan for Stage II berm construction as part of the Segment 5 cleanup on June 20, 2003, which was conditionally approved by EPA on August 8, 2003. Activities that were approved by EPA are incorporated into this SOW by this reference.

Following placement of dredged material from Segments 3 and 4 of the Mouth of Hylebos Waterway Problem Area and placement of any other material approved for placement and confinement, the containment berm will be completed to its final elevation of 18 feet (MLLW) and the entire Slip 1 NCD Facility will be capped.

3. Mouth of Hylebos Waterway Problem Area Open Access Dredge Areas

Previous investigations and preliminary engineering evaluations of the Mouth of Hylebos Waterway Problem Area are documented in the Hylebos Waterway Pre-Remedial Design Evaluation Report (PRDE Report), approved by EPA in November 1999. Consistent with the PRDE Report and the 2000 ESD, sediment requiring confined disposal shall be dredged and

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disposed of in the Slip 1 NCD Facility. Areas to be dredged are shown on Figures 2 and 3. Wherever practicable, sediment will be dredged to below the native sediment interface. Performance monitoring will be undertaken, and additional dredging completed as necessary, to ensure removal of sediment exceeding applicable SQOs. Dredging and performance monitoring requirements are described in Section III.B below, and shall be detailed in the CQAP(s) and OMMP(s), as appropriate.

4. Embankment Cleanups

The embankment areas to be addressed in the Mouth of Hylebos Waterway Problem Area under this SOW include:

- a) The Port Industrial Yard (SMA 531)
- b) Parcel 4 (SMA 541)
- c) City of Tacoma (SMA 402)
- d) Taylor Way Properties (SMA 431)
- e) Buffelen (SMA 341)
- f) Murray Pacific (SMA 342)
- g) Sound Refining (SMA 432)
- h) Port of Tacoma (formerly Wasser Winters) Embankment (SMA 103)
- i) Puyallup Tribe (SMA 123)

The Settling Defendants shall perform the embankment cleanup actions required under this SOW to ensure that performance standards are achieved for these areas of the Hylebos Waterway. To the extent that individual property owners request design elements not covered by this SOW, the time lines and coordination for the embankment cleanup with respect to items outside the scope of this SOW shall be identified in the RA Work Plans (see Section IV, Task 3). These coordination activities will also be addressed in separate deliverables to EPA as necessary to ensure the sediment remedial action is conducted in compliance with this SOW and the remedial action schedule. The SMAs subject to the terms of the consent decree entered in U.S. v. Mary Jane Anderson, et al, Civil Action Number C03-5107 (W.D. WA 2003) will be addressed consistent with those terms.

The appropriate remedial action (capping or dredging or natural recovery) for the embankment

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actions described above will be evaluated in the remedial design deliverables submitted under this SOW.

5. Natural Recovery Areas

Natural recovery has been selected for specific portions of the Hylebos Waterway as an acceptable remediation approach at locations where sediments are marginally contaminated, are likely to recover to SQOs within the ten (10) year time frame specified in the ROD, and are located in areas with a low potential for future exposure of subsurface contamination. At the CB/NT Site, EPA considers marginally contaminated sediments as those with chemical concentrations less than the second lowest Apparent Effects Threshold (AET) value (the SQO is set at the lowest AET) or biological test results that do not exceed the minimum cleanup level (MCUL) values under Washington State Sediment Management Standards (SMS). Numeric AET chemical concentration values are those specified in the 1989 ROD, while biological MCUL criteria are those specified in SMS regulations. Where PCBs are present, marginally contaminated sediments are those with PCB concentrations below 450 parts per billion (ppb) as identified in the 2000 ESD.

The PRDE Report predicted that the Chinook Marina in Segment 5 would naturally recover within the 10 years following active remediation of the adjacent waterway. The Settling Defendants will monitor this area to verify compliance with performance monitoring criteria summarized in Table 1 (including optional biological monitoring; see Table 1). If future monitoring data indicate that natural recovery will not or does not occur within the next 10 years, the need for enhanced natural recovery and/or active sediment remediation will be reassessed with EPA, consistent with the 2000 ESD. The scope of long-term monitoring and appropriate response actions will be established in the overall Mouth of Hylebos OMMP.

The PRDE Report also predicted that several areas within Segment 3 and 4 would naturally recover within the 10 years following active remediation of the adjacent waterway. Performance monitoring will be performed to verify compliance with criteria summarized in Table 1 (including optional biological monitoring; see Table 1). If future monitoring data indicate that natural recovery will not or does not occur within 10 years, the need for enhanced natural recovery and/or active sediment remediation will be reassessed by the Settling Defendants and EPA, consistent with the 2000 ESD. The scope of long-term monitoring and appropriate response

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actions will be established in the overall Mouth of Hylebos OMMP

As part of the remedial design, the Settling Defendants may choose to address natural recovery areas through active remediation rather than rely on natural recovery and the long-term monitoring performance monitoring required with natural recovery.

D. Coordination with the Occidental Site AOC

EPA and Occidental previously identified two non-time critical removal actions related to the former Occidental facility located at the Mouth of Hylebos Waterway Problem Area—Area 5106 and the Embankment Area. Engineering Evaluation/Cost Analysis (EE/CA) documents were prepared under a separate Administrative Order on Consent (AOC) No. 10-97-0011-CERCLA, and most of the Area 5106 Removal Action was completed. Information obtained since 2003 led Occidental, EPA and Ecology to determine that remaining sediment, ground water, and soil contamination at the Occidental Site should be characterized and remediated in an integrated manner which meets the requirements of both agencies. These actions are now the subject of the Occidental Site AOC as amended January 2005. Under this SOW, coordination with the Occidental Site amended AOC is required.

III. PERFORMANCE STANDARDS

Settling Defendants shall adhere to the following performance standards for the design and implementation of the Mouth of Hylebos Waterway Problem Area Remedial Design/Remedial Action (RD/RA). These performance standards, as stated in the 2000 ESD or elsewhere, are consistent with the cleanup objectives and are necessary to ensure that the remedy is protective of human health and the environment, and complies with Applicable or Relevant and Appropriate Requirements (ARARs). Performance standards shall include cleanup standards, standards of control, quality criteria, and other substantive requirements, criteria, or limitations including all ARARs set forth in the 1989 ROD, 1997 and 2000 ESDs, this SOW, and/or CD, and approved deliverables under this SOW. The Settling Defendants shall address these performance standards in remedial design and shall identify additional performance standards and methods necessary to successfully implement the remedial action, including performance standards to monitor the long-term effectiveness of the remedial action and mitigation areas.

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A. Cap Requirements

One of the remedial actions selected in the 1989 ROD and included in the preliminary cleanup plans for the Hylebos Waterway is capping. The Settling Defendants shall follow EPA guidance, “Guidance for *In-situ* Subaqueous Capping of Contaminated Sediments” (September 1998, Reference EPA 905-B6-004) for the design and construction of capped areas.

In the remedial design, the Settling Defendants shall evaluate each embankment SMA on a property-by-property basis to identify a final design for capping or dredging or natural recovery. For each property, the Settling Defendants’ basis for design shall address the following factors:

- protectiveness of the proposed cap,
- compatibility with current and anticipated future land use,
- property owner’s willingness to implement use restrictions on the capped area and/or ensure such restrictions will run with the land,
- engineering constraints, and
- avoidance and/or minimization of habitat impacts and identification of appropriate mitigation under CWA Section 404, and compliance with Endangered Species Act measures that may be identified.

The SMAs subject to the terms of the consent decree entered in U.S. v. Mary Jane Anderson, et al., Civil Action Number C03-5107 (W.D. WA 2003) will be addressed consistent with those terms.

EPA intends to maintain the integrity and effectiveness of any capped area over contaminated sediments through requirements for construction, long-term monitoring, and maintenance, including the following:

1. Caps will have a minimum thickness of three (3) feet unless an alternative thickness is demonstrated to be consistent with “Guidance for *In-situ* Subaqueous Capping of Contaminated Sediments,” and/or otherwise approved by EPA. Caps will be constructed to address adverse impacts through four primary functions:
 - a. Physical isolation of the contaminated sediment from the ecological receptors;

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- b. Complete confinement and stabilization of contaminated sediments, preventing resuspension and transport to other locations within the waterway;
 - c. Reduction of chemicals transported through the groundwater pathway to levels that will not impact surface sediments (defined as the “biologically active zone” where most sediment-dwelling organisms live) above the SQOs, and will not impact surface water at levels exceeding background concentrations or marine chronic water quality criteria identified in Table 2;
 - d. Provide a cap surface that promotes colonization by aquatic organisms, unless it is demonstrated not to be practicable.
2. Long-term monitoring of the cap may include visual inspection, bathymetric survey, sediment deposition monitoring, chemical monitoring, and biological monitoring. The monitoring requirements will be specified in the OMMP(s).

The Settling Defendants shall demonstrate that all capped areas are completed in accordance with these performance standards. The methods for achieving the objectives for the capped areas shall be set forth in the Design Report(s). Verification of performance standards shall be documented in the CQAP(s) and the OMMP(s), as appropriate. As-builts shall be provided for each capped SMA in the Remedial Action Construction Report (see Section IV, Task 4).

B. Dredging and Confined Disposal

Performance standards for dredging and placement in the NCD Facility shall be consistent with the CB/NT ROD and ARARs including the Clean Water Act, Rivers and Harbors Act, and Endangered Species Act requirements. Under this SOW, the Mouth of Hylebos Waterway Problem Area, including the NCD Facility will be subject to construction quality assurance and long-term monitoring to ensure that the selected remedy remains protective, and that applicable water quality standards are not exceeded beyond the surface water mixing zone identified for in-water activities (e.g., capping, dredging, and placement in the NCD Facility) and outside of the NCD Facility during and after construction. Ground water discharging from Slip 1 shall not exceed concentrations which can be expected to contaminate sediment above an SQO. Section 401 of the Clean Water Act requires that both dredging and dredged material placement (including dewatering) operations shall not violate applicable effluent or water quality standards. EPA, working with Ecology, will be responsible for certifying during remedial design that such

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operations will comply with this requirement. This determination allows for the designation of mixing zones within which standards may be exceeded, but beyond which applicable standards must be met. While dredging and placement operations conducted as part of a remedial action within a CB/NT problem area do not require a formal Section 401 water quality certification from Ecology, these operations must comply with the substantive requirements of such certification, including specified monitoring and reporting requirements identified by EPA.

The mixing zone utilized during other dredging actions and placement in the NCD Facility (including temporary discharge of dewatering fluids as appropriate), will require a water-quality certification from EPA. The Settling Defendants shall submit water quality monitoring plans as part of the CQAP(s) required under this SOW.

The Settling Defendants shall design and implement the dredging of designated SMAs necessary to achieve SQO cleanup levels in those areas EPA has determined will not naturally recover within 10 years. Wherever practicable, sediment will be dredged to below the native sediment interface. Performance monitoring will be undertaken, and additional dredging completed as necessary, as detailed in the OMMP(s) to be approved by EPA. The need for additional dredging will be determined based on a comparison of post-remedial action sediment chemistry with SQOs, and/or the results of biological testing. In addition, the need for additional dredging may be based on a statistical comparison of performance monitoring data with SQOs, surrounding surface chemistry, and SRALs. The sediment quality monitoring and decision framework for long-term effectiveness will be detailed in the OMMP(s).

Contaminated sediment shall be dredged and placed in the NCD Facility. As-built drawings of all dredged surfaces shall be provided to EPA in the Remedial Action Construction Report (see Section IV, Task 4). The Settling Defendants shall document to EPA quantities (in-place volumes), and placement location (the NCD Facility) for each SMA dredged from the Mouth of Hylebos Waterway Problem Area.

The methods for achieving the objectives for dredged areas and the Slip 1 NCD Facility addressed under this SOW shall be set forth in the Design Report(s), the CQAP(s) and the OMMP(s), as appropriate. Verification that performance standards, including SQOs and/or results of biological testing, have been achieved shall be documented in the Pre-Final Inspection Report, Final Inspection Report, and/or the Remedial Action Completion Report, as appropriate.

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C. Natural Recovery

For those areas selected for natural recovery, the Settling Defendants shall perform/prepare the following:

- Monitoring plans,
- Identify triggers for initiating additional response actions if the monitoring indicates natural recovery will not succeed in the ten (10) year time frame, and
- Specify additional response actions for active remediation if monitoring indicates natural recovery will not occur by year ten (10).

These elements shall be primarily addressed in the OMMP(s) for the Site and other deliverables, as appropriate. Natural recovery monitoring will be performed until cleanup objectives have been achieved.

D. Subsurface Contamination

The plan for dredging SMAs in the Mouth of Hylebos Waterway Problem Area included in this SOW (Figures 2 and 3) includes all areas of subsurface contamination that EPA determined had a high to moderate potential for future exposure. Contaminated subsurface sediments that EPA determined had a low potential for exposure will require long-term monitoring under this SOW. Because exposure of contaminated subsurface sediments may occur during the cleanup by dredging adjacent areas, the Settling Defendants shall, under this SOW, prepare a final remedial design and implement the remedial action to ensure that contaminated subsurface sediment is not exposed and that SQOs are achieved at the face of every dredge cut (consistent with approved OMMPs). Where EPA determines it is not practicable to achieve SQOs at the face of a dredge cut, Enhanced Natural Recovery or alternatives other than dredging may be proposed by the Settling Defendants.

Because exposure of contaminated subsurface sediments may occur after construction of the remedial action through physical processes, such as storms or ship scour, or through future dredging or excavation, under this SOW, the Settling Defendants shall conduct long-term monitoring in these areas as set forth in an approved OMMP. This element of long-term monitoring shall be designed, in part, to detect recontamination from buried subsurface

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contamination.

Ground water flowing through subsurface source material can potentially result in pore water or sediment contamination within the biologically active zone. If needed, monitoring may be conducted as set forth in the OMMP, to assess the degree of chemical isolation provided by overlying sediment

Conservation Measures and Mitigation

The Settling Defendants shall take all appropriate measures during remedial design, construction, and site maintenance to avoid and minimize adverse impacts to the aquatic environment resulting from implementation of the remedial action. As set forth in the CB/NT Biological Assessment (BA) prepared by EPA, and in the 2000 ESD, a range of conservation measures are required by EPA to ensure that critical habitat for listed species is protected by the remedial action.

Conservation measures for work in the Mouth of Hylebos Waterway Problem Area include:

- Design of capping actions to avoid conversion of aquatic habitat to upland in the Mouth of Hylebos Waterway Problem Area, or inclusion of compensatory mitigation measures if conversion is unavoidable;
- Design of dredging and capping actions to avoid conversion of intertidal habitat to subtidal habitat in the Mouth of Hylebos Waterway Problem Area, or inclusion of compensatory mitigation measures if conversion is unavoidable;
- Timing restrictions for in-water work to avoid fish-critical activity periods, such that no in-water work will occur during designated fish windows.
- Substantive compliance with water quality standards as specified in a water quality certification to be issued by EPA;
- Addition of select substrates (fish mix) as part of capping to assist in providing suitable habitat for prey items of juvenile salmonids; and
- Incorporation of specific measures (e.g., Best Management Practices) into the design, to reduce the potential for construction-related impacts to listed species or their habitats. Specific design measures will be reviewed and approved by EPA.

Additional Conservation Measures and Project specific compensatory mitigation were later added during Endangered Species Act Consultation and were presented to EPA in the BA

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Addendum Prepared by Grette Associates (February 2003). Conservation measures are described in the BA Addendum.

Section 404 of the Clean Water Act requires compensatory mitigation for unavoidable loss of wetlands and aquatic habitat. Consistent with EPA's August 2000 ESD, habitat mitigation for the Project is consistent with the criteria and findings of the Commencement Bay Aquatic Ecosystem Assessment (Simenstad 2000). The overall goal of the compensatory mitigation is to contribute toward the recovery of ESA-listed species, consistent with the conservation measures in the BA and the August 2000 ESD performance standards for mitigation.

Compensatory mitigation for the Project was negotiated with EPA and was primarily associated with the loss of aquatic habitat in Slip 1. Construction of the Slip 1 NCD Facility will convert 2.62 acres of littoral habitat to uplands. To compensate for this unavoidable loss of habitat, littoral habitat is being provided at the Slip 5 mitigation site. Slip 5 Mitigation Site construction includes placement of select material and clean sandy dredged material to create an embayment, which is protected by a rocky reef on the outer edge. Activities in Slip 5 also include the extension of the Pier 1D Beach and placement of select substrate and large woody debris. In total, the mitigation action in Slip 5 converts 6.12 acres of subtidal habitat to littoral habitat. An additional 0.97 acre of existing littoral habitat within Slip 5 will be improved through changes in Slope and substrate. In total, the mitigation will yield increases in acreage and quality of littoral habitat and provide habitats that partly offset past cumulative impacts in the bay.

As an additional mitigation action for the Project, the Settling Defendants will construct a habitat improvement project adjacent to the existing Clear Creek Habitat Improvement Project. The proposed Clear Creek Habitat Improvement Project – Phase II involves converting existing upland and reed canary grass wetland into mudflat and tidal channels with abundant edge habitat. The Clear Creek Habitat Improvement Project – Phase II will provide a minimum of 2 acres of new habitat that is affected by tidal fluctuation and consisting of tidal channels separated by mudflat and/or emergent wetlands. As with the Slip 5 Mitigation Site, the Clear Creek Habitat Improvement Project Phase II is designed to be consistent with the criteria and findings of the ESD (EPA 2000) and the Commencement Bay Aquatic Ecosystem Assessment (Simenstad 2000).

IV. WORK TO BE PERFORMED BY SETTLING DEFENDANTS

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To accomplish the work under the SOW, the remedial design/remedial action shall consist of the six (6) tasks summarized below. The Settling Defendants shall be responsible for implementing additional work elements necessary for successful implementation of the Mouth of Hylebos Waterway Problem Area remedial action. All plans are subject to EPA approval. To date, several of these tasks have been completed by the Settling Defendants, as described in Section V and summarized in tabular format in Section VI, RD/RA Schedule of Deliverables and Milestones.

Task 1: Remedial Design Work Plan

Task 2: Remedial Design

- A. Preliminary (30%) Design Deliverable (Segments 3 and 4 only)
- B. Draft (90%) Design
- C. Final (100%) Design

Task 3: Remedial Action Work Plan

Task 4: Remedial Action Construction and Documentation

- A. Award Construction
- B. Notification of RA Start
- C. Preconstruction Inspection/Meeting
- D. Initiate Construction
- E. RA Progress Meetings
- F. Pre-final Construction Inspection
- G. Final Construction Inspection
- H. Reports
 - Remedial Action Construction Report
 - Final Remedial Action Report

Task 5: Performance Monitoring and Construction Quality Assurance

Task 6: Long-term Operation, Maintenance & Monitoring

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In an effort to initiate remedial action as quickly as possible, the Settling Defendants have submitted separate design deliverables for discrete elements of the remedial action as indicated in Task 2 below. Section V of this SOW discusses the status of the various deliverables and Section VI discusses the schedule for submission of the deliverables.

Additional details on each task are provided below. Documentation for each of the six tasks listed above has been/will be submitted to EPA for review and approval. As has been done for all deliverables to date, a draft version of each future document shall be submitted to EPA for review and comment unless otherwise agreed by EPA and the Settling Defendants. Subject to and in accordance with Section XI of the CD, upon receipt of EPA's comments on a draft document, the Settling Defendants shall submit to EPA a revised final document that incorporates EPA's modifications or summarizes and addresses EPA's concerns. All deliverables submitted in response to EPA's comments shall include a transmittal that responds directly to each comment, and identifies how the comment was addressed in the deliverable. This SOW also specifies submittal of certain documentation (e.g., construction progress reports, monthly progress reports) that will be used by EPA for informational purposes only but will not be formally approved by EPA.

Task 1: Remedial Design Work Plan

The Settling Defendants shall submit a Remedial Design Work Plan to EPA for review and approval in accordance with Section IX.A. of the UAO and Section VI (Schedule of Milestones and Deliverables) of this SOW. The RD Work Plan shall summarize the overall management strategy for performing the design (including additional data needs), construction, operation, maintenance, and monitoring of remedial actions. The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation and shall include a description of qualifications of key personnel directing the remedial design, including contracting personnel. Contact information (address, phone number, and e-mail addresses) and general responsibilities for key personnel shall be provided. The RD Work Plan shall also contain a schedule of remedial design activities.

In addition to describing the overall management strategy and identifying additional data needs as described above, the Settling Defendants shall make all reasonable efforts to communicate to the public and business community and coordinate work under this SOW to minimize disruption of

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normal use of the Hylebos Waterway and adjacent project areas. In the RD Work Plan, Settling Defendants shall address scheduling and coordination of work under this SOW with other in-water work or navigation near the project area that may occur. The Settling Defendants shall also initiate early discussions and coordination with property owners within the project area to determine if cleanup actions could potentially be efficiently integrated into a single combined action.

Task 2: Remedial Design

The remedial design is generally defined as those activities to be undertaken to develop the final plans and specifications, general provisions, special requirements, and all other technical and procurement documentation necessary to fully implement the remedial action as described in the CB/NT ROD and this SOW. The Settling Defendants shall prepare construction plans and specifications to implement the remedial actions within the Mouth of Hylebos Waterway Problem Area as described in the ROD and in accordance with the schedule set forth in Section VI of this SOW. As approved by EPA, the Settling Defendants have divided the remedial design into five separate major design elements including the Slip 5 Habitat Construction, Clear Creek Habitat Improvement, Hylebos Waterway Segment 5, Hylebos Waterway Segments 3 and 4, and Pier 25 Embankment. Therefore, five separate sets of design submittals reflecting the five design elements of remedial action have been or will be submitted to EPA for review and approval. All remedial design work, including plans and specifications, shall be developed in accordance with EPA's Superfund Remedial Design and Remedial Action Guidance (OSWER Directive No. 9355.0-4A) and shall demonstrate that the remedial action shall meet all objectives of the ROD, CD, and this SOW, including all performance standards. The Settling Defendants shall meet regularly with EPA to discuss design issues. The following sections provide details on the required remedial design deliverables as well as a summary of the status of the various submittals at the time of this writing (See Sections V and VI).

A. Preliminary (30%) Design for Segments 3 and 4

The Settling Defendants shall submit the Draft Segment 3 and 4 Preliminary (30%) Design Deliverable for discrete elements of Segments 3 and 4 described above, in accordance with the CD and Section VI (RD/RA Schedule of Deliverables & Milestones) of this SOW. The Draft Segments 3 and 4 Preliminary Design Deliverable will present, for EPA review and approval, the

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results of remedial design sampling and analysis, and a preliminary dredge plan for identified SMAs within Segments 3 and 4, as set forth in the August 2000 ESD.

The Preliminary (30%) Design for Segments 3 and 4 was submitted to EPA in May 2003, as described in Section V of this SOW.

B. Draft Final (90%) Design

Within sixty (60) days after receipt of EPA's comments on the Preliminary (30%) Design, the Settling Defendants shall submit the Draft Final Design Report that is approximately ninety (90) percent complete, unless otherwise approved by EPA.

The following design elements will be discrete Draft Final (90%) Design deliverables that are each subject to the schedule for submission requirements identified in Section VI of this SOW:

- Hylebos Segment 5 Cleanup/Slip 1 NCD Facility
- Hylebos Segments 3 and 4 Cleanup
- Pier 25 Embankment

The Draft Design submittals shall include or discuss, at a minimum, the following:

1. **Summary of pre-design field sampling and analysis results.** This shall include both previously approved EPA data/interpretations and new data presented for EPA approval;
2. **Basis for Design Report.** The Basis for Design Report (Design Analysis Report ["DAR"]) shall include a discussion of detailed design assumptions, parameters, design restrictions and objectives, for the following:
 - a. General Elements— description of analyses; technical parameters used; supporting calculations; required coordination and permits; and preliminary construction schedules.
 - b. Capping Elements – material types and testing procedures; compliance with

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performance standards outlined in Section III of this SOW; habitat considerations; and construction techniques.

- c. Dredging Elements: – dredging, handling, transport, and disposal methods; dredge prism and overcut allowances; and performance standards outlined in Section III of this SOW.
 - d. Cost Estimate – refined Pre-Remedial Design estimate to reflect the detail presented in the Draft Design.
 - e. Project Schedule – schedule for design, construction, and implementation of the remedial action that identifies timing for initiation and completion of all critical path tasks. The schedule shall include construction sequencing between this SOW (Mouth of Hylebos Waterway Problem Area) and remedial action completed by others (e.g. Occidental Site amended AOC, MWAC placement of dredged material, Manke placement of dredged material).
3. **Plans and Specifications.** A complete set of plans and specifications defining the detailed design shall be included with the Draft (90%) Final Design submittal;;
4. **Draft CQAP.** The Draft Final (90 %) CQAP shall include a summary of roles and responsibilities, proposed inspection and verification activities, contractor qualification requirements, water quality monitoring requirements (described below), documentation, and reporting. In addition, the CQAP shall summarize the various construction elements, associated potential problems, and proposed quality control/quality assurance procedures to ensure the elements are constructed in accordance with the approved design. See Section IV, Task 5 of this SOW for additional details regarding the CQAP.
- a. Water Quality Monitoring Plan. The Water Quality Monitoring Plan shall be in accordance with the Water Quality Certification issued by EPA for the project. The plan will include the following minimum elements: monitoring

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schedule, sampling locations, intervals, parameters, analytical methods, key contacts, reporting requirements (including daily reports), daily contacts for notifications of all exceedances, result summaries, and draft and final reports.

5. **Addendum to Biological Assessment.** The Settling Defendants shall submit an addendum to EPA's "Biological Assessment, Commencement Bay/Nearshore Tideflats Superfund Site," July 2000, addressing the performance standards in Section III.E. of this SOW, evaluating the following:
 - a. Impacts to filling Blair Slip 1. The Settling Defendants may submit to EPA the September 2001 BA that was submitted to the Corps to avoid redundant work effort. Appropriate modifications will be made to the document to reflect that contaminated sediment will be used for fill material consistent with this SOW. The compensatory mitigation plan for impacts associated with the filling of Blair Slip 1 shall also be submitted to EPA for approval
 - b. Net changes to intertidal and shallow subtidal habitat resulting from final dredging and capping designs in the Mouth of Hylebos Waterway Problem Area and identifying the need for mitigation of unavoidable impacts. If mitigation is necessary, a compensatory mitigation plan shall be submitted to EPA that also addresses the performance criteria in Section III.E. The Biological Assessment shall identify the proposed mitigation project for EPA approval;
6. **Draft OMMP.** The Draft Final (90 %) OMMP shall include a description of the post-remedial action environmental monitoring activities including data objectives, analyses to be performed, sampling equipment and methods to be used, and reporting. See Task 6 of this SOW for additional details regarding the OMMP

As discussed in Section V, the Draft Final (90%) Design for the Segment 5 Cleanup Project was submitted to EPA on June 29, 2001. The Settling Defendants submitted the Revised Draft Final (90%) Design for the Segments 3 and 4 Cleanup Project on January 30, 2004.

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C. Final (100%) Design

Within forty-five (45) days of receipt of EPA's comments on the Draft Final (90%) design, the Settling Defendants shall submit the Final Design that is one hundred (100) percent complete, unless otherwise approved by EPA. The Final (100%) Design shall fully address all comments made to the Draft (90%) Design and shall include reproducible plans and specifications suitable for bid advertisement. The final project schedule submitted as part of the Final (100%) Design shall include specific dates for major milestones and completion of the project. As described in Task 3 of this Section, certain elements of the design will be finalized as part of the subsequent RA Work Plan deliverable. This applies to the Clear Creek and Slip 5 Habitat Projects.

The following design elements will be discrete Final (90%) Design deliverables that are each subject to the schedule for submission requirements identified in Section VI of this SOW, unless otherwise approved by EPA:

- Hylebos Segment 5 Cleanup/Slip 1 NCD Facility
- Hylebos Segments 3 and 4 Cleanup
- Pier 25 Embankment

The project plans and specifications included with the Final (100%) Design shall include detailed descriptions of sampling activities, such as water quality performance sampling. The requirements for quality assurance sampling activities including the sampling protocols, sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation will be described. The CQAP(s) will address inspections, surveys, oversight, and reporting as described above in Task 2, B.4. Detailed procedures for sediment and water quality sampling and analysis (post-dredge confirmatory and long-term) shall be presented in the OMMP(s). The OMMP(s) shall include sediment sampling operations manual, quality assurance project plans, and health and safety plans for sediment sampling activities. Existing EPA-approved (HCC) Quality Assurance Project Plans (QAPPs) and other EPA-approved supporting documents may be referenced or included as appropriate.

As discussed in Section V, the Settling Defendants submitted the Final (100%) Design for the

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Segment 5 Cleanup Project to EPA on June 20, 2003. Section VI summarizes the schedule for submittal of the Final (100%) Design for the Segments 3 and 4 Cleanup Project.

Task 3: Remedial Action Work Plan

The Settling Defendants shall submit a Remedial Action (RA) Work Plan for each discrete group of remedial action construction activities. Discrete groups of construction activities, identified by the Settling Defendants and approved by EPA include the following:

- Clear Creek Habitat Improvement;
- Slip 5 Habitat Construction;
- Slip 1 Pier Demolition;
- Slip 1 NCD Facility Stage I Containment Berm Construction;
- Hylebos Waterway Segment 5 Cleanup / Slip 1 NCD Facility Project;
- Hylebos Waterway Segments 3 and 4 Cleanup Project; and
- Pier 25 Embankment Project.

Each RA Work Plan shall contain a detailed description of all remediation and construction activities, including how those construction activities are to be implemented by the Settling Defendants and coordinated with EPA (e.g., site-monitoring, material staging and handling). The following deliverables will be submitted with the RA Work Plan, and may serve as the Final (100%) Design, if approved by EPA (unless previously submitted and approved by EPA):

1. Final CQAP (See Task 5 for detail);
2. Final OMMP (See Task 6 for detail);
3. Final Contractor Pre-Construction Submittals describing remedial action construction activities (e.g., Water Quality Monitoring Plan, Health and Safety Plan, Environmental Protection Plan, Construction Quality Control (CQC) Plan, and Project Schedule).

The project schedule submitted as part of the RA Work Plans shall include each major activity and submission of deliverables generated during the remedial action. The project schedule shall

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clearly describe the interrelationship between various discrete portions of the remedial and removal actions within this SOW. The Settling Defendants shall submit RA Work Plans in accordance with Section IX of the CD and Section VI of this SOW.

Task 4: Remedial Action Construction and Documentation

The Settling Defendants shall implement the remedial action as detailed in the approved Final (100%) Design(s) and Final RA Work Plan(s). The following activities shall be completed in constructing the remedial action.

A. Award Construction Contract

The Settling Defendants shall enter into a contract with a construction contractor following EPA approval of the Final (100%) Design and RA Work Plan for each discrete group of remedial action construction activities listed in Task 3. The Settling Defendants shall award the construction contract in accordance with Section VI of this SOW.

B. Notification of RA Start

The Settling Defendants shall notify EPA of the start date for RA construction in accordance with the schedule presented in Section VI of this SOW.

C. Preconstruction Inspection and Meeting

The Settling Defendants shall participate in a pre-construction inspection and meeting for each discrete group of remedial action construction activities (as listed in Task 3) with the selected contractor, EPA, and other agencies as appropriate. The following items will be discussed at the pre-construction meeting:

1. Review methods for documenting and reporting inspection data, and compliance with specifications and plans including methods for processing design changes and securing EPA review and approval of such changes as necessary;

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2. Review methods for distributing and storing documents and reports;
3. Review work area security and safety protocol;
4. Demonstrate the construction management is in place, and discuss any appropriate modifications of the construction quality assurance plan to ensure that Site-specific considerations are addressed; and
5. Conduct a Site walk-about to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

All inspections and meetings shall be documented by Settling Defendants' designated contact and minutes shall be transmitted to all parties within seven (7) working days of the inspection or meeting.

D. Initiate Construction

The Settling Defendants shall initiate RA construction of each discrete group of construction activities in accordance with the schedule presented in Section VI of this SOW.

E. RA Briefings and Progress Meetings

The Settling Defendants shall conduct RA briefings and progress meetings on a regular basis throughout the RA. Briefings shall be held on a weekly basis during construction to discuss issues such as the results of ongoing water quality monitoring and field changes unless EPA and the Settling Defendants agree to a less frequent schedule. Progress meetings shall be held at least monthly during construction, unless EPA and the Settling Defendants agree to a less frequent schedule. Progress meetings shall be scheduled on the same day that weekly briefings occur, thus eliminating the need for additional briefings during that week. At a minimum, the Settling Defendants shall address the following at progress meetings:

1. General progress of construction with respect to RA schedule;

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2. Problems encountered and associated action items;
3. Pending design, personnel or schedule changes requiring EPA review and approval;
4. Results of any RA verification sampling and associated decisions and action items.

F. Prefinal and Final Construction Inspections/Meetings

The Settling Defendants shall conduct pre-final and final remedial action construction inspections in accordance with Paragraph 47.a of the CD.

G. Pre-Final and Final Remedial Action Completion Inspections

The Settling Defendants shall conduct pre-final and final remedial action completion inspections in accordance with Paragraph 47.b of the CD.

H. Reports

The Settling Defendants shall follow EPA guidance for preparing Remedial Action Reports described in "Close Out Procedures for National Priorities List Sites," EPA 540-R-98-016, OSWER Directive 9320.2-09A-P, PB98-963223, January 2000 in submitting the following reports.

1. Remedial Action Construction Report

The Settling Defendants shall submit RA Construction Reports when the construction is complete for appropriate remedial action elements but, if applicable, before all performance standards have been attained (i.e., prior to achieving natural recovery and long-term performance standards for mitigation).

Within thirty (30) days of the last successful final construction inspection, the Settling Defendants shall submit a RA Construction Report. In the report, a registered professional engineer and the Settling Defendants' Project Coordinator shall state that the remedial action has been constructed in accordance with the design and specifications. The written report shall

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include as-built drawings signed and stamped by a professional engineer, and other supporting documentation to demonstrate that the CQAP(s) and appropriate portions of the OMMP(s) were followed. The report shall contain the following statement, signed by a responsible corporate official of each Respondent or the Settling Defendants' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2. Remedial Action Completion Report

The Settling Defendants shall submit RA Completion Reports after construction is complete for appropriate remedial action elements and all performance standards have been attained (including performance standards for natural recovery and mitigation areas, as applicable), but where OMMP requirements will continue to be performed.

Within thirty (30) days of a successful demonstration that all performance standards have been attained, the Settling Defendants shall submit a RA Completion Report. In the report, a registered professional engineer and a responsible corporate official or the Settling Defendants' Project Coordinator shall state the remedial action has been completed in full satisfaction of the requirements of the CD. The written report shall include a summary of all information (e.g., long-term monitoring data) demonstrating performance standards not met (e.g., natural recovery) in the RA Construction Report have been obtained. The report shall also include documentation not previously submitted with the RA Construction Report verifying that performance standards, including SQO cleanup objectives, have been attained. The report shall contain the following statement, signed by a responsible corporate official of each Respondent or the Settling Defendants' Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing

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violations."

Task 5: Performance Monitoring and Construction Quality Assurance

Performance monitoring shall be conducted to ensure that all performance standards are met, including cleanup verification methods and methods for determining compliance with performance standards and ARARs. The CQAP shall address performance standards related to the remedial action construction (e.g., inspections, surveys, oversight and reporting as described above in Task 1, B.4). Confirmatory sediment sampling to demonstrate completion of dredging, long-term achievement of SQOs throughout the Mouth of the Hylebos Waterway Problem Area and other long-term performance standards to be achieved after remedial action construction is completed (e.g., achievement of SQOs in natural recovery areas) shall be addressed in the OMMP(s), as described in Task 6. Existing EPA-approved (HCC) QAPPs and other supporting documents may be referenced as appropriate.

The documents listed in this section must be prepared and submitted consistent with Section III of this SOW. The required content of each of these documents is described below.

A. Construction Quality Assurance Plan

The Settling Defendants shall submit in accordance with the schedule in Section VI of this SOW, a Construction Quality Assurance Plan (CQAP) that describes the specific components of the performance methods and quality assurance program that shall ensure that the completed project meets or exceeds performance standards and design criteria, and the project plans and specifications, including achievement of SQOs as defined in this SOW. Consistent with preparation of discrete elements of the remedial design as described in Task 2, the Settling Defendants may submit more than one CQAP for discrete portions of the remedial action to facilitate contracting the remedial and removal actions under this SOW.

The draft CQAP(s) shall be submitted with the Draft Final (90%) Design Report and the final CQAP shall be submitted with the Final (100%) Design and also included with the RA Work Plan for each design. The CQAP(s) shall contain, at a minimum, the following elements:

1. Responsibilities and authorities of all organizations and key personnel involved

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in the design and construction of the remedial action, including EPA and other agencies.

2. Qualifications of the Construction Quality Assurance (CQA) Official. Establish the minimum training and experience of the CQA Officer and supporting inspection personnel.
3. Performance Standards and Methods. Describe all performance standards and methods necessary to ensure implementation of the remedial action construction, including mitigation as appropriate, in compliance with ARARs and identified site-specific performance standards. Performance monitoring requirements shall be stated to demonstrate that best management practices have been implemented for dredging operations, transportation of dredged material, and proper cap placement techniques.
4. Inspection and Verification activities. Establish the observations and tests that will be required to monitor the construction and/or installation of the components of the remedial action. The plan shall include the general scope and frequency of each type of inspection to be conducted. Inspections shall be required to measure compliance with environmental requirements and ensure compliance with all health and safety procedures.
5. Documentation. Reporting requirements for CQA activities shall be described in detail in the CQAP. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation/storage. A description of the provisions for final storage of all records consistent with the requirements of the CD shall be included.
6. Field Changes. Describe procedures for processing design changes and securing EPA review and approval of such changes to ensure changes conform to performance standards, ARARs, requirements of this SOW, are consistent with Cleanup Objectives and are protective of human health and the environment.

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7. Final Reporting. Identify all final CQAP documentation to be submitted to EPA in the in the RA Construction Report, or other deliverables and submissions.

Detailed procedures for water quality sampling and analysis described in the CQAP(s) shall be presented in the plans and specifications, as appropriate. Existing EPA-approved (HCC) QAPPs and other supporting documents may be referenced or included, as appropriate.

B. Quality Assurance Project Plans

For a particular sampling event, the Settling Defendants may propose to use an existing EPA-approved QAPP. The Settling Defendants will identify whether any changes or additions are needed for each sampling effort. Regardless of whether the Settling Defendants utilize existing EPA-approved QAPPs or submit a new QAPP for a unique sampling event, the QAPP shall be consistent with the requirements of the EPA Contract Lab Program (CLP) for laboratories proposed outside the CLP. The QAPP shall at a minimum include the following:

1. Project Description
 - a. Facility Location History
 - b. Past Data Collection Activity
 - c. Project Scope
 - d. Sample Network Design
 - e. Parameters to be Tested and Frequency
 - f. Project Schedule
2. Project Organization and Responsibility
3. Data Management Plan
 - a. Describe tracking, sorting, retrieving data
 - b. Identify software for data storage,
 - c. Minimum data requirements & data format
 - d. Data backup procedures
 - e. Submission of data in format(s) acceptable to EPA

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4. Quality Assurance Objective for Measurement Data
 - a. Level of Quality Control Effort
 - b. Accuracy, Precision, and Sensitivity of Analysis
 - c. Completeness, Representativeness and Comparability
5. Sampling Procedures
6. Sample Custody
 - a. Field Specific Custody Procedures
 - b. Laboratory Chain-of-Custody Procedures
7. Calibration Procedures and Frequency
 - a. Field Instruments/Equipment
 - b. Laboratory Instruments
8. Analytical Procedures
 - a. Non-contract Laboratory Program Analytical Methods
 - b. Field Screening and Analytical Protocol
 - c. Laboratory Procedures
9. Internal Quality Control Checks
 - a. Field Measurements
 - b. Laboratory Analysis
10. Data Reduction, Validation, and Reporting
 - a. Data Reduction
 - b. Data Validation
 - c. Data Reporting
11. Performance System Audits
 - a. Internal Audits of Field Activity
 - b. Internal Laboratory Audit
 - c. External Field Audit
 - d. External Laboratory Audit

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12. Preventative Maintenance
 - a. Routine Preventative Maintenance Procedures and Schedules
 - b. Field Instruments/Equipment
 - c. Laboratory Instruments
13. Specific Routine Procedures to Assess Data Precision, Accuracy, and Completeness
 - a. Field Measurement Data
 - b. Laboratory Data
14. Corrective Action
 - a. Sample Collection/Field Measurements
 - b. Laboratory Analysis
15. Quality Assurance Reports to Management

C. Health and Safety Plan

The Settling Defendants, or their contractors, shall develop and submit in accordance with the schedule in Section VI of this SOW, remedial action health and safety plans (RAHSPs) which are designed to protect on-site personnel and area residents from physical, chemical, and all other hazards posed by this remedial action. The RAHSPs shall develop the performance levels and criteria necessary to address the following areas:

- Facility description
- Personnel
- Levels of protection
- Safe work practices and safeguards
- Medical surveillance
- Personal protective equipment
- Personal hygiene
- Decontamination—personal and equipment
- Site work zones

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- Contaminant control
- Contingency and emergency planning including SPCC
- Logs, reports, and record keeping

The RAHSP shall follow EPA guidance and all OSHA requirements as outlined in 29 C.F.R. 1910 and 1926. The Settling Defendants may utilize existing Health and Safety Plan (HASP) project documents (e.g., pre-remedial design HASP) or other company/contractor HASPs provided that the Settling Defendants demonstrate the HASP has been modified, as necessary, or otherwise sufficiently addresses the activities covered by this SOW.

D. Field Sampling Plan

The Settling Defendants shall develop and submit, in accordance with the schedule in Section VI of this SOW, field sampling plan(s) (FSPs) (or equivalent documents/appendices) as described in “Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA”, October 1988. The FSPs will supplement the QAPP and address all sample collection activities under this SOW.

Task 6: Operation, Maintenance & Monitoring

The Settling Defendants shall submit for EPA approval in accordance with the schedule in Section VI of this SOW, a post-remedial action Operation, Maintenance, & Monitoring Plan (OMMP) for each discrete remedial action design elements of the Mouth of Hylebos Waterway Problem Area identified in Task 2, unless otherwise approved by EPA, and an overall Mouth of Hylebos long-term OMMP. The objectives of the OMMP(s) shall include:

- Confirmation that performance standards are achieved by the remedial action;
- Confirmation that SQOs are still maintained in the SMAs dredged within the Mouth of Hylebos Waterway Problem Area;
- Confirmation that exposure of subsurface contamination has not occurred through physical processes such as storms or ship scour;
- Evaluation of the effectiveness of capping areas;
- Evaluation of the effectiveness of the NCD Facility ;
- Confirming natural recovery in designated areas within 10 years following completion

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of remedial actions in adjacent areas;

- Evaluation of the long-term effectiveness of source control;
- Evaluation of the long-term effectiveness of habitat mitigation; and
- Evaluation of leachability of treated Area 5106 Sediment on other materials confined in the NCD Facility.

The Settling Defendants shall prepare an OMMP(s) to cover both implementation and long-term maintenance and monitoring of the remedial action, including mitigation areas. Each draft OMMP shall be submitted with the corresponding Draft Final (90%) Design. The final OMMP(s) shall be submitted to EPA no later than the corresponding Remedial Action Work Plan submittal. The final OMMP(s) shall address all comments made to the draft OMMP(s) and will be subject to EPA approval. After results for each monitoring event are reported, the final OMMP(s) will be reviewed and revised as necessary, under EPA direction and approval. Monitoring may include, but not be limited to the following types of actions:

- Bathymetry;
- Sediment chemistry;
- Confirmatory biological analyses (i.e., sediment bioassays or benthic infaunal abundance);
- Groundwater chemistry at the NCD Facility; and
- Seepage chemistry for specific SMAs.

The Settling Defendants shall propose the appropriate monitoring elements necessary to achieve the specified monitoring objectives in this SOW for the remedial action. A rationale for the proposed monitoring actions shall also be included. However, long-term monitoring to ensure the effectiveness of the remedial action, including mitigation, will continue as long as contaminated sediments are left in place.

The OMMP(s) shall be composed of the following elements:

1. Description of normal operation and maintenance:
 - a. Description of tasks to achieve each monitoring objective;
 - b. Description of tasks for maintenance;
 - c. Schedule showing frequency of each OMMP task; and

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- d. Summary table of OMMP activities for all activities (e.g., NCD Facility, Segment 3, 4 & 5 cleanups; embankments, mitigation, etc.)
2. Description of routine monitoring and laboratory testing:
 - a. Description of monitoring tasks;
 - b. Description of required data collection (including sample type, number, location and frequency), laboratory tests, and their interpretation;
 - c. Required quality assurance and quality control, SAP & HASP (or addenda);
 - d. Schedule of monitoring frequency; and
 - e. Description of verification sampling procedures if SQOs or performance standards are exceeded in routine monitoring.
3. Corrective Action:
 - a. Description of corrective action to be implemented in the event that cleanup or performance standards are not met (e.g., if exceedances of SQOs are detected, identify additional sampling and/or analysis to be conducted by the Settling Defendants to identify appropriate response actions, if any); and
 - b. Schedule for implementing these corrective actions.
4. Description of procedures for a request to EPA to reduce the frequency of or discontinue monitoring.
5. Records and reporting mechanisms required:
 - a. Laboratory records;
 - b. Records for long-term monitoring costs;
 - c. Documentation to comply with CERCLA 5-year Review Reporting Requirements; and
 - d. Reports to State or Federal Agencies.

The final OMMP(s) shall include detailed descriptions of all sampling activities, such as groundwater and sediment quality monitoring, and shall establish requirements for quality assurance sampling activities including the sampling protocols, sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation. The OMMP(s) shall

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include a sediment sampling operations manual, quality assurance project plans, and health and safety plans for sediment sampling activities. Existing EPA-approved (HCC) QAPPs and other EPA-approved supporting documents may be referenced or included as appropriate. As needed, the OMMP may also include procedures to allow for temporary disturbances of remediated areas (e.g., certain operations in capped embankment areas).

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V. CURRENT STATUS OF WORK PERFORMED BY SETTLING DEFENDANTS

The Settling Defendants have completed several of the tasks, as described in Section IV, required by this SOW. This Section details the current status of the six tasks outlined in Section IV. All of these activities and approvals are incorporated into this SOW.

Task 1: Remedial Design Work Plan

The Settling Defendants submitted an RD Work Plan to EPA for review and approval on April 29, 2002. EPA approval of the RD Work Plan was received on July 3, 2002.

Task 2: Remedial Design

The Settling Defendants have submitted the following design deliverables in accordance with this SOW. All activities which have been approved by EPA are incorporated into this SOW by this reference.

A. Clear Creek Habitat

The Settling Defendants submitted the Final (100%) Project Plans and Specifications, and CQAP for the Clear Creek Habitat Improvement Project on March 27, 2003 as part of the RA Work Plan for this project.

B. Slip 5 Habitat

Because the Slip 5 Habitat Site is being constructed in two phases, design submittals were submitted addressing the two Phases separately. The Settling Defendants submitted the Phase I Plans and Specifications to EPA on August 2, 2002, which included several appendices, including the CQAP for Slip 5 Habitat Construction – Phase I (Pacific International Engineering, 2002). The Plans and Specifications for Phase I were later updated by two addenda, each of which were submitted to EPA on September 3, 2002. Addendum Number One for the Slip 5 Habitat Construction – Phase I essentially transmitted to the bidding community copies of the actual permits and approvals obtained by the Port since the Plans and Specifications were put out for public bidding. Addendum Number Two modified the amount of the Slip 5 Habitat Construction

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– Phase I work that was to be completed during the term of the contract. This change to the amount of work required under the Phase I Specifications was made in response to a number of members of the bidding community informing the Port of Tacoma that they did not believe the contract time frame allowed enough time for construction of all of Phase I, Stage 2. Based on this change, the work that was not completed as part of Phase I construction will be included in the Phase II construction contract.

Plans and Specifications for the Slip 5 Mitigation Phase 2 were submitted to EPA on June 20, 2003. The Specifications for Phase 2 of the Project included a number of appendices including the Slip 5 Habitat Construction – Phase 2 Construction Quality Assurance Plan (Grette Associates 2003).

C. Hylebos Segment 5 Cleanup/Slip 1 NCD Facility

Pursuant to receipt of EPA's comments on the Draft Final (90%) Design submittal (Hart Crowser et al. 2001), the Settling Defendants submitted a Final (100%) Design for the Hylebos Waterway Segment 5 Cleanup / Slip 1 NCD Facility Project to EPA on June 20, 2003 (Hart Crowser et al 2003c). This final submittal followed the Draft Final (90%) Design submittal, a supplemental technical memo regarding Slip 1 containment berm construction (Hart Crowser 2002), and two interim drafts of the Final Design (January 22 and March 14, 2003). These deliverables provided the basis of design for the dredging of sediments from Segment 5 of the Hylebos Waterway and placement in either the PSDDA open-water disposal site or the Slip 1 NCD Facility. The documents also provided the basis of design for construction of the Slip 1 NCD Facility, including pier demolition and containment berm construction. EPA provided conditional approval for the Segment 5 portion of the project on February 27, 2003.

D. Hylebos Segments 3 and 4 Cleanup

The Settling Defendants submitted a Preliminary (30%) Design Memorandum for the Hylebos Waterway Segments 3 and 4 Project for EPA review and comment in August 2002 (Anchor et al. 2002). Following receipt of EPA comments (dated January 17, 2003), the Settling Defendants resubmitted a Revised Preliminary (30%) Design Memorandum in May 2003 (Anchor et al. 2003). Defendants then submitted a Draft Final (90%) Design to EPA on October 30, 2003. In addition, this document summarized the basis of design for the Slip 1 NCD Facility, as presented

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in the Segment 5 Final Design (Hart Crowser et al. 2003). Upon receipt of EPA comments dated November 25, 2003 on the Draft (90%) Final Design and subsequent meetings with EPA, the Settling Defendants submitted a "Revised" Draft (90 Percent) Final Design on January 30, 2004. A Final (100 Percent) Design submittal was submitted in May 2004 following receipt of EPA's comments on the Draft Final (90%) Design dated March 31, 2004. EPA provided a partial and conditional approval for the Segment 3-4 remedial design on July 15, 2004.

E. Pier 25 Embankment

The Settling Defendants submitted a Draft Final (90%) Design submittal for the Pier 25 Embankment on July 9, 2001. The Pier 25 design is currently in progress.

F. Biological Assessment Addendum

The Settling Defendants submitted a Biological Assessment (BA – Grette Associates, February 2003) as an addendum to the BA prepared by EPA for the entire Commencement Bay Nearshore/Tideflats Superfund Site (EPA 2000a). Biological Opinions were prepared by NOAA Fisheries and the U.S. Fish and Wildlife Service on August 21, 2003 and September 11, 2003, respectively.

Task 3: Remedial Action Work Plan

The Settling Defendants have submitted, and EPA has approved, RA Work Plans for five of the seven discrete groups of construction activities listed in Task 2 of Section IV, including Clear Creek and Slip 5 habitats, Slip 1 pier demolition, Stage I berm construction, and Segment 5 cleanup. EPA provided a partial and conditional Segment 3-4 Work Plan approval on July 15, 2004.

Task 4: Remedial Action Construction and Documentation

The Settling Defendants have initiated remedial action on six of the seven discrete groups of construction activities listed in Task 3 including Clear Creek and Slip 5 habitats, Slip 1 pier demolition, Stage I berm construction, Segment 5 Cleanup/Slip 1 NCD Facility, and Segment 3-4 cleanup.

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Preconstruction meetings/inspections were held for each of these construction elements, the dates of which are summarized in Section VI of this SOW. The Settling Defendants also participated in regularly scheduled RA briefings and progress meetings with the construction contactor, EPA and other agency representatives.

The defendants believe that remedial action has been completed for the five discrete activities listed above. Pre-Final and/or Final Construction Inspection letters/reports and/or RA Construction/Completion reports have been completed for the following.

- Clear Creek Habitat Improvement: Final Inspection /RA Completion Report submitted January 13, 2004;
- Slip 5 Habitat Construction-Phase I: Final Inspection/RA Completion Report submitted March 27, 2003;
- Slip 1 Pier Demolition: Pre-Final/final Inspection Report submitted February 4, 2003;
- Stage I Containment Berm: Final Inspection/RA Completion Report submitted March 6, 2003; and
- Segment 5 Cleanup: Pre-Final Inspection Report submitted February 11, 2004.

Task 5: Performance Monitoring and Construction Quality Assurance

The Settling Defendants submitted a CQAP for the Stage I Berm Construction component on August 30, 2002, which was approved by EPA on September 20, 2002. The Settling Defendants have also submitted a Final (100%) CQAP for the Hylebos Segment 5 cleanup project, which was approved by EPA on February 27 and July 16, 2003. As part of the Segment 5 RA Work Plan, the Settling Defendants submitted a RAHSP prepared by the construction contractor (Miller Contracting) for the Segment 5 Cleanup Project.

The Settling Defendants submitted a Final (100%) CQAP for the Clear Creek Habitat Mitigation Project on March 27, 2003. The Final CQAPs for Phase I and Phase II of the Slip 5 Habitat Improvement Project were submitted to EPA on July 19, 2002 and June 20, 2003 respectively.

The Draft Final (90%) CQAP for the Segments 3 and 4 Cleanup Project was submitted on

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October 3, 2003 followed by a Revised Draft Final (90%) CQAP on January 30, 2004. In response to EPA comments dated March 31, 2004, the Final (100%) CQAP for the Segments 3 and 4 Cleanup Project will be submitted in May 2004. Prior to remedial action construction, a revised RAHSP will be submitted with the Segments 3 and 4 RA Work Plan.

A Draft Final (90%) CQAP for the Pier 25 Embankment was submitted by the Settling Defendants on July 9, 2001.

Task 6: Operation, Maintenance & Monitoring

The Settling Defendants submitted a final OMMP for the Hylebos Segment 5 cleanup project on June 20, 2003. The Settling Defendants also submitted a Draft Final (90%) OMMP for the Segments 3 and 4 Cleanup Project on October 3, 2003 followed by a Revised Draft Final (90%) OMMP on January 30, 2004. In response to EPA comments dated March 31, 2004, and subsequent meetings with EPA, an overall draft Mouth of Hylebos OMMP was submitted to EPA in June of 2004.

A Draft Final (90%) OMMP for the Pier 25 Embankment was submitted to EPA by the Settling Defendants on July 9, 2001.

VI. RD/RA SCHEDULE OF DELIVERABLES AND MILESTONES

The schedule for notification to EPA or submission of major deliverables to EPA is described in Table 3. If the date for submission of any item or notification required by this SOW occurs on a weekend or federal holiday, the date for submission of that item or notification shall be the next working day following the weekend or holiday.

VII. References

Grette Associates 2003. Mouth of Hylebos Waterway – Segment 5 Remediation, Slip 1 Confined Disposal Facility Project Biological Assessment Addendum, Commencement Bay Nearshore/Tideflats Superfund Site, Tacoma, Washington. Prepared for the Port of Tacoma and Occidental Chemical Corporation. February 2003.

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Hart Crowser, Berger/ABAM, and Anchor 2003. 100 Percent Design Submittal: Hylebos Waterway Cleanup (Segment 5)/Slip 1 Nearshore Confined Disposal (NCD) Facility Project. Prepared for the Port of Tacoma, Washington and Occidental Chemical Corporation, Tacoma, Washington by Hart Crowser, Berger/ABAM, and Anchor Environmental, June 20, 2003.

Hart Crowser 2002. Draft Technical Memorandum: Supplementary Geotechnical Information, Supporting 90 Percent Design Submittal, Hylebos Waterway Segment 5 Cleanup/Slip 1 CDF Project. Prepared by Hart Crowser, Inc., dated May 23, 2002.

Anchor 2002. Preliminary (30 Percent) Design Memorandum, Hylebos Waterway Remedial Design, Segments 3 and 4. Prepared for Occidental Chemical Corporation and the Port of Tacoma, August 2002.

Anchor 2003b. Revised Preliminary (30 Percent) Design Memorandum, Hylebos Waterway Remedial Design, Segments 3 and 4. Prepared for Occidental Chemical Corporation and the Port of Tacoma, May 2003.

Simenstad, Charles A. 2000. Commencement Bay Aquatic Ecosystem Assessment: Ecosystem-Scale Restoration for Juvenile Salmon Recovery. Prepared for the City of Tacoma, Washington Department of Natural Resources and the U.S. Environmental Protection Agency.

Washington State Department of Ecology 2000. Milestone 5 report - See Section II.A

Pacific International Engineering 2002. July 19, 2002

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TABLE 1

**Table 1 - Applicable Surface Sediment Quality Criteria
Hylebos Waterway Phase I Cleanup Actions**

PARAMETER	Sediment Quality Objective (SQO)	Sediment Remedial Action Level (SRAL)
Metals (mg/kg dry weight):		
Antimony	150	(a)
Arsenic	57	(a)
Cadmium	5.1	(a)
Copper	390	(a)
Lead	450	(a)
Mercury	0.59	(a)
Nickel	140	(a)
Silver	6.1	(a)
Zinc	410	(a)
Tributyl tin porewater µgTBT/L	0.7	(a)
Volatile Organics (µg/kg dry weight):		
Ethylbenzene	10	(a)
Tetrachlorethene	57	(a)
Total Xylenes	40	(a)
Chlorinated Organic Compounds (µg/kg dry weight):		
1,2-Dichlorobenzene	50	(a)
1,3-Dichlorobenzene	170	(a)
1,4-Dichlorobenzene	110	(a)
1,2,4-Trichlorobenzene	51	(a)
Hexachlorobenzene	22	(a)
Hexachlorobutadiene	11	(a)
Polycyclic Aromatic Hydrocarbons (µg/kg dry weight):		
Naphthalene	2,100	(a)
Acenaphthylene	1,300	(a)
Acenaphthene	500	(a)
Fluorene	540	(a)
Phenanthrene	1,500	(a)
Anthracene	960	(a)
2-Methylnaphthalene	670	(a)
Total LPAHs	5,200	(a)
Fluoranthene	2,500	(a)
Pyrene	3,300	(a)
Benzo(a)anthracene	1,600	(a)
Chrysene	2,800	(a)
Benzo(b+k)fluoranthenes	3,600	(a)
Benzo(a)pyrene	1,600	(a)
Indeno(1,2,3-cd)pyrene	690	(a)
Dibenzo(a,h)anthracene	230	(a)
Benzo(g,h,i)perylene	720	(a)
Total HPAHs	17,000	(a)
Phthalates (µg/kg dry weight):		
Dimethylphthalate	160	(a)
Diethylphthalate	200	(a)
Di-n-butylphthalate	1,400	(a)
Butylbenzylphthalate	900	(a)
Bis(2-ethylhexyl)phthalate	1,300	(a)
Di-n-octylphthalate	6,200	(a)
Phenols (µg/kg dry weight):		
Phenol	420	(a)
2-Methylphenol	63	(a)
Phenols (µg/kg dry weight):		
4-Methylphenol	670	(a)
2,4-Dimethylphenol	29	(a)

**Table 1 - Applicable Surface Sediment Quality Criteria
Hylebos Waterway Phase I Cleanup Actions**

PARAMETER	Sediment Quality Objective (SQO)	Sediment Remedial Action Level (SRAL)
Pentachlorophenol	360	(a)
Miscellaneous Extractable Compounds (µg/kg dry weight):		
Benzyl alcohol	73	(a)
Benzoic acid	650	(a)
Dibenzofuran	540	(a)
N-Nitrosodiphenylamine	28	(a)
Pesticides and PCBs (µg/kg dry weight):		
p,p'-DDE	9	(a)
p,p'-DDD	16	(a)
p,p'-DDT	34	(a)
Total PCBs	300	450
Confirmatory Biological Testing Determinations (optional):		
Overall Interpretation	The SQO is exceeded when any one of the confirmatory marine sediment biological tests of WAC 173-204-315(1) demonstrates the following results:	The SRAL is exceeded when numerical SRALs described in note (a) are exceeded, or when any two of the biological tests exceed the SQO biological criteria, or one of the following test determinations is made:
Amphipod Toxicity Bioassay	The test sediment has a lower (statistically significant, t-test, p=0.05) mean survival than the reference sediment, and the test sediment mean survival is less than 75 percent, on an absolute basis.	The test sediment has a lower (statistically significant, t-test, p=0.05) mean survival than the reference sediment, and the test sediment mean survival is 30 percent lower than a value represented by the reference sediment mean mortality plus thirty percent.
Larval Toxicity/Abnormality Bioassay	The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t-test, p=0.10) than the mean normal survivorship in the reference sediment, and the test sediment mean normal survivorship is less than 85 percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than 15 percent relative to time-final in the reference sediment).	The test sediment has a mean survivorship of normal larvae that is less (statistically significant, t-test, p=0.10) than the mean normal survivorship in the reference sediment, and the test sediment mean normal survivorship is less than 70 percent of the mean normal survivorship in the reference sediment (i.e., the test sediment has a mean combined abnormality and mortality that is greater than 30 percent relative to time-final in the reference sediment).
Juvenile Polychaete Growth Bioassay	The test sediment has a mean individual growth rate of less than 70 percent of the reference sediment mean individual growth rate and the test sediment mean individual growth rate is statistically different (t-test, p=0.05) from the reference sediment mean individual growth rate.	The test sediment has a mean individual growth rate of less than 50 percent of the reference sediment mean individual growth rate and the test sediment mean individual growth rate is statistically different (t-test, p=0.05) from the reference sediment mean individual growth rate.

NOTES: (a) SRALs are the enforceable cleanup standard for this action; see Section 2.C.1 of the SOW. Numerical SRALs vary by location within the Hylebos Waterway, largely because of varying sediment rate. Specific SRAL values for the Hylebos Phase I Cleanup Project are set forth in Chapter 3 of the PDER, and may be refined during remedial design using equivalent procedures.

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TABLE 2

**Table 2 - Applicable Surface Water Quality Criteria
Hylebos Waterway Phase I Cleanup Actions**

PARAMETER	Chronic Criterion (b)	Acute Criterion (c)
Conventional (a):		
Dissolved Oxygen (mg/L)	5.0 or < 0.2 change	N/A
Turbidity (NTU)	< 10 NTU or 20%	N/A
Metals (µg/L):		
Copper (dissolved)	3.1	4.8
Lead (dissolved)	8.1	210
Mercury (total)	0.025	1.8
Nickel (dissolved)	8.2	74
Silver (dissolved)	N/A	1.9
Zinc (dissolved)	81	90
Volatile Organics (µg/L):		
Dichloroethenes (total)	N/A	224,000
Tetrachlorethene	450	10,200
Trichloroethene	N/A	2,000
Vinyl chloride	525	N/A
Semivolatile Organics (µg/L):		
Hexachlorobutadiene	N/A	32

NOTES:

- (a) Water quality standards for these parameters are set forth in WAC 173-201A-030(3)
- (b) 48-hour average concentration
- (c) 1-hour average concentration

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TABLE 3

Table 3 - RD/RA Schedule of Deliverables and Milestones

Item	Milestone	Description ^a	Submittal/Completion Date	EPA Comment or Approval Date
Clear Creek Habitat Improvement				
1.	Task 1: Remedial Design Work Plan	15 days after UAO effective date		
2.	Task 2: Remedial Design			
3.	A. Preliminary (30%) Design	60 days after receipt of EPA comments on 30% Design		
4.	B. Draft Final (90%) Design	45 days after receipt of EPA comments on 90% Design		
5.	Task 3: Remedial Action Work Plan	45 days after approval of 100% Design		
6.	Task 4: Remedial Action Construction			
7.	A. Award RA Construction Contract	Not later than (NLT) 45 days after approval of design and RA Work Plan		
8.	B. Notification of RA Start	30 days prior to start of construction		
9.	C. Pre-Construction Inspection Meeting	15 days after award		
10.	D. Initiate Construction	NLT 50 days after award		
11.	E. RA Briefings and Progress Meetings	Weekly during construction	Weekly during construction	
12.	F. Prefinal Construction Inspection/Meeting	NLT 30 days after completion of construction	January 13, 2004	
	a. Prefinal Construction Inspection	7 days after the prefinal construction inspection	January 20, 2004	

	Letter/Report(s)			
13.	G. Final Construction Inspection	NLT 30 days after completion of work identified in prefinal construction inspection letter	January 13, 2004	
14.	a. Final Construction Inspection Letter/Report(s)	NLT 30 days after final inspection	January 20, 2004	
15.	H. Reports			
16.	a. Remedial Action Construction Report			
17.	b. Final Remedial Action Report	At the completion of all RA		
18.	Task 5: Performance Monitoring and Construction Quality Assurance	Included with corresponding design submittal		
19.	Task 6: Long-term Operation, Maintenance & Monitoring	Included with corresponding design submittal		
Slip 5 Habitat Construction				
20.	Task 1: Remedial Design Work Plan	15 days after UAO effective date		
	Task 2: Remedial Design			
21.	A. Preliminary (30%) Design			
22.	B. Draft Final (90%) Design	60 days after receipt of EPA comments on 30% Design		
23.	C. Final (100%) Design	45 days after receipt of EPA comments on 90% Design		
24.	Task 3: Remedial Action Work Plan	45 days after approval of 100% Design	August 2, 2002	
	Task 4: Remedial Action Construction			

25.	A. Award RA Construction Contract	Not later than (NLT) 45 days after approval of design and RA Work Plan		
26.	B. Notification of RA Start	30 days prior to start of construction		
27.	C. Pre-Construction Inspection Meeting	15 days after award		
28.	D. Initiate Construction	NLT 50 days after award		
29.	E. RA Briefings and Progress Meetings	Weekly during construction	Weekly during construction	Weekly during construction
30.	F. Prefinal Construction Inspection/Meeting	NLT 30 days after completion of construction		
31.	a. Prefinal Construction Inspection Letter/Report(s)	7 days after the prefinal construction inspection		
32.	G. Final Construction Inspection	NLT 30 days after completion of work identified in prefinal construction inspection letter	March 20, 2003	
33.	a. Final Construction Inspection Letter/Report(s)	NLT 30 days after final inspection	March 27, 2003	
	H. Reports			
34.	a. Remedial Action Construction Report			
35.	b. Final Remedial Action Report	At the completion of all RA		
36.	Task 5: Performance Monitoring and Construction Quality Assurance	Included with corresponding remedial design submittal	March 28, 2003 (Draft)	
37.	Task 6: Long-term Operation,	Included with corresponding		

	Maintenance & Monitoring	remedial design submittal		
Segment 5 Cleanup/Slip 1 NCD Facility				
38.	Task 1: Remedial Design Work Plan	15 days after UAO effective date	April 29, 2002	July 3, 2002
	Task 2: Remedial Design			
39.	A. Preliminary (30%) Design		May 1, 2000	
40.	B. Draft Final (90%) Design	60 days after receipt of EPA comments on 30% Design	June 29, 2001	September 27, 2001 (Draft)
41.	1. Supplemental Memo	NA	May 23, 2002	NA
42.	C. Final (100%) Design	45 days after receipt of EPA comments on 90% Design	January 22, 2003	February 27, 2003
43.	1. Revised Final (100%) Design	NA	March 14, 2003	NA
44.	2. Final (100%) Design	NA	June 20, 2003	July 16, 2003
45.	Task 3: Remedial Action Work Plan	45 days after approval of 100% Design		
	1. Pier Demolition		July 22, 2002	July 23, 2002
	2. Stage I Containment Berm		August 30, 2002	September 20, 2002
	3. Segment 5 Cleanup		June 20, 2003	August 8, 2003
	Task 4: Remedial Action Construction			
46.	A. Award RA Construction Contract	Not later than (NLT) 45 days after approval of design and RA Work Plan		
47.	1. Pier Demolition			
48.	2. Stage I Containment Berm			
49.	3. Segment 5 Cleanup			
50.	B. Notification of RA Start	30 days prior to start of construction		
51.	C. Pre-Construction Inspection	15 days after award		

	Meeting			
52.	1. Pier Demolition		August 1, 2002	
53.	2. Stage I Containment Berm		October 23, 2002	
54.	3. Segment 5 Cleanup		April 30, 2003	
55.	D. Initiate Construction	NLT 50 days after award		
56.	1. Pier Demolition		August 2, 2002	
57.	2. Stage I Containment Berm		November 9, 2002	
58.	3. Segment 5 Cleanup		July 16, 2003	
59.	E. RA Briefings and Progress Meetings	Weekly during construction	Weekly during construction	Weekly during construction
60.	F. Prefinal Construction Inspection/Meeting			
61.	1. Pier Demolition	NLT 30 days after completion of construction	November 21, 2002	
62.	a. Prefinal Construction Inspection Letter/Report(s)	7 days after the prefinal construction inspection	November 21, 2002	
63.	2. Stage I Containment Berm	NLT 30 days after completion of construction	January 16, 2003	
64.	a. Prefinal Construction Inspection Letter/Report(s)	7 days after the prefinal construction inspection	February 4, 2003	
65.	3. Segment 5 Cleanup	NLT 30 days after completion of construction	February 12, 2004	
66.	a. Prefinal Construction Inspection Letter/Report(s)	7 days after the prefinal construction inspection	February 12, 2004	
67.	G. Final Construction Inspection			
68.	1. Pier Demolition	NLT 30 days after completion	December 10, 2002	

		of work identified in prefinal construction inspection letter		
69.	a. Final Construction Inspection Letter/Report(s)	NLT 30 days after final inspection	January 10, 2003	
70.	2. Stage I Containment Berm	NLT 30 days after completion of work identified in prefinal construction inspection letter	February 4, 2003	
71.	a. Final Construction Inspection Letter/Report(s)	NLT 30 days after final inspection	March 6, 2003	
72.	3. Segment 5 Cleanup	NLT 30 days after completion of work identified in prefinal construction inspection letter		
73.	a. Final Construction Inspection Letter/Report(s)	NLT 30 days after final inspection		
	H. Reports			
74.	a. Remedial Action Construction Report			
75.	1. Pier Demolition		January 10, 2003	
76.	2. Stage I Containment Berm		March 6, 2003	
77.	3. Segment 5 Cleanup			
78.	b. Final Remedial Action Report	At the completion of all RA		
79.	Task 5: Performance Monitoring and Construction Quality Assurance	Included with corresponding remedial design submittal	See Task 2	See Task 2
80.	Task 6: Long-term Operation,	Included with corresponding	See Task 2	

	Maintenance & Monitoring	remedial design submittal		
Segments 3 and 4 Cleanup				
81.	Task 1: Remedial Design Work Plan	15 days after UAO effective date	April 29, 2002	July 3, 2002
	Task 2: Remedial Design			
82.	A. Preliminary (30%) Design		August 2002	January 17, 2003
83.	1. Revised 30%Design		May 2003	NA
84.	B. Draft Final (90%) Design	60 days after receipt of EPA comments on 30% Design	October 3, 2003	November 25, 2003
85.	1. Revised 90% Design	NA	January 30, 2004	March 31, 2004
86.	C. Final (100%) Design	45 days after receipt of EPA comments on 90% Design	Anticipated May 21, 2004	
87.	Task 3: Remedial Action Work Plan	45 days after approval of 100% Design		
	Task 4: Remedial Action Construction			
88.	A. Award RA Construction Contract	Not later than (NLT) 45 days after approval of design and RA Work Plan		
89.	B. Notification of RA Start	30 days prior to start of construction		
90.	C. Pre-Construction Inspection Meeting	15 days after award		
91.	D. Initiate Construction	NLT 50 days after award		
92.	E. RA Briefings and Progress Meetings	Weekly during construction		
93.	F. Prefinal Construction Inspection/Meeting	NLT 30 days after completion of construction		
94.	a. Prefinal Construction Inspection	7 days after the prefinal construction inspection		

	Letter/Report(s)			
95.	G. Final Construction Inspection	NLT 30 days after completion of work identified in prefinal construction inspection letter		
96.	a. Final Construction Inspection Letter/Report(s)	NLT 30 days after final inspection		
	H. Reports			
97.	a. Remedial Action Construction Report			
98.	b. Final Remedial Action Report	At the completion of all RA		
99.	Task 5: Performance Monitoring and Construction Quality Assurance	Included with corresponding remedial design submittal	See Task 2	See Task 2
100.	Task 6: Long-term Operation, Maintenance & Monitoring	Included with corresponding remedial design submittal	See Task 2	
Pier 25 Embankment				
101.	Task 1: Remedial Design Work Plan	15 days after UAO effective date	April 29, 2002	
	Task 2: Remedial Design			
102.	A. Preliminary (30%) Design			
103.	B. Draft Final (90%) Design	60 days after receipt of EPA comments on 30% Design	July 9, 2001	
104.	C. Final (100%) Design	45 days after receipt of EPA comments on 90% Design		
105.	Task 3: Remedial Action Work Plan	45 days after approval of 100% Design		
	Task 4: Remedial Action Construction			

106.	A. Award RA Construction Contract	Not later than (NLT) 45 days after approval of design and RA Work Plan		
107.	B. Notification of RA Start	30 days prior to start of construction		
108.	C. Pre-Construction Inspection Meeting	15 days after award		
109.	D. Initiate Construction	NLT 50 days after award		
110.	E. RA Briefings and Progress Meetings	Weekly during construction		
111.	F. Prefinal Construction Inspection/Meeting	NLT 30 days after completion of construction		
112.	a. Prefinal Construction Inspection Letter/Report(s)	7 days after the prefinal construction inspection		
113.	G. Final Construction Inspection	NLT 30 days after completion of work identified in prefinal construction inspection letter		
114.	a. Final Construction Inspection Letter/Report(s)	NLT 30 days after final inspection		
	H. Reports			
115.	a. Remedial Action Construction Report			
116.	b. Final Remedial Action Report	At the completion of all RA		
117.	Task 5: Performance Monitoring and Construction Quality Assurance	Included with corresponding remedial design submittal	See Task 2	
118.	Task 6: Long-term Operation,	Included with corresponding	See Task 2	

	Maintenance & Monitoring	remedial design submittal		
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^a Submittal timing, unless otherwise approved by EPA

APPENDIX A

FIGURE 1

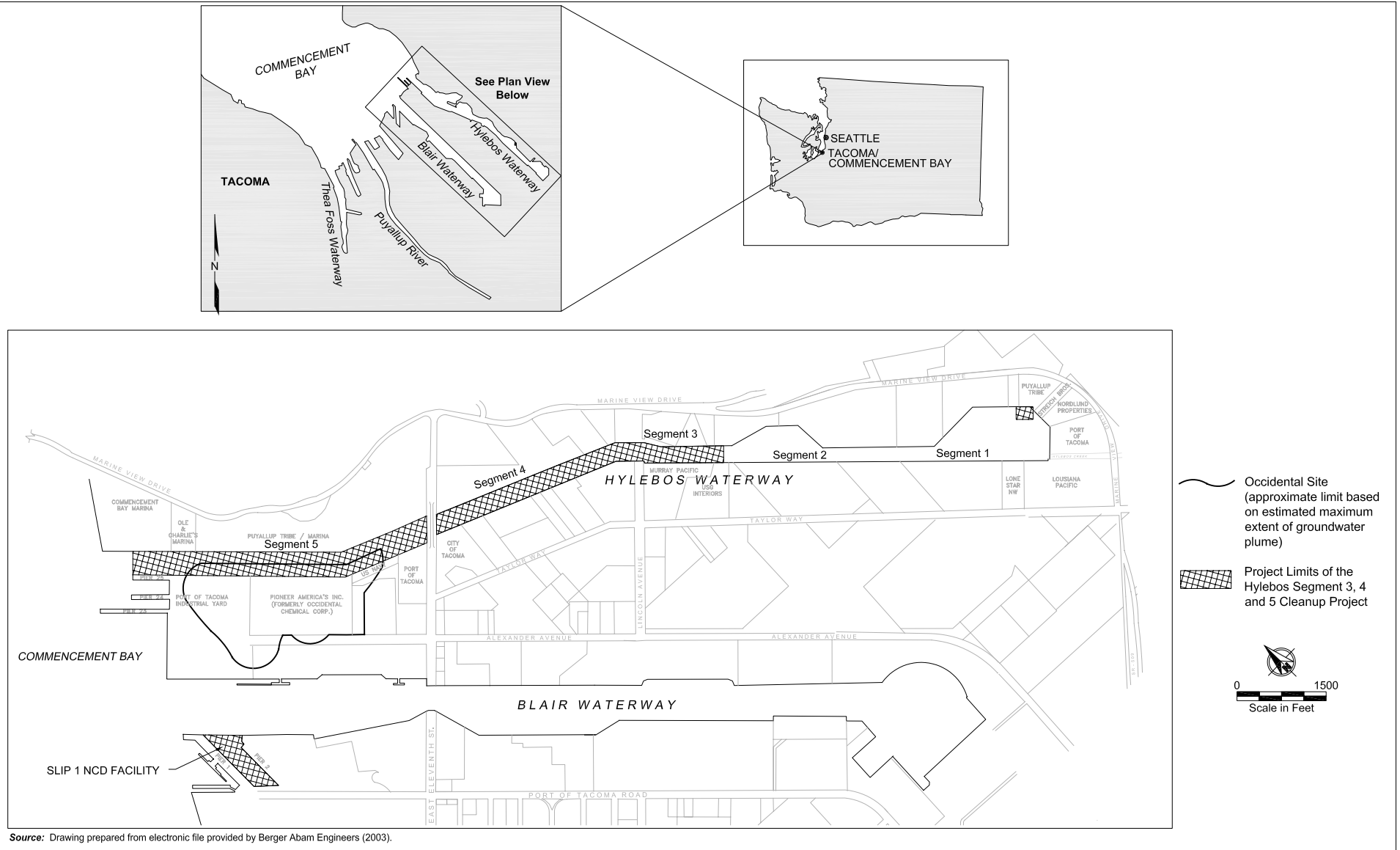


Figure 1
Vicinity Map
Mouth of Hylebos Waterway Problem Area

APPENDIX A

FIGURE 2

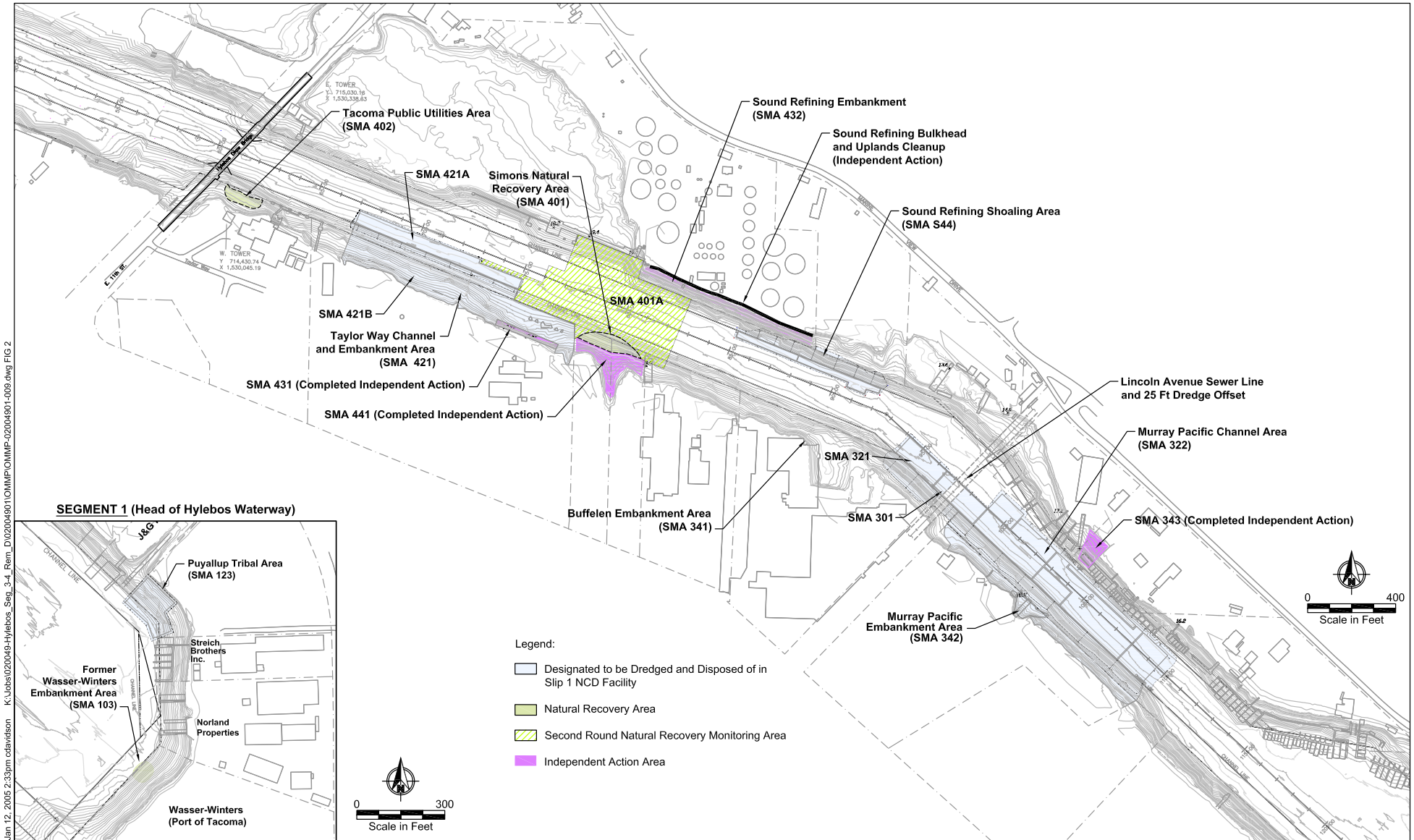


Figure 2
Remedial Action Areas
Mouth of Hylebos Waterway (Segments 1, 3, and 4)

APPENDIX A

FIGURE 3

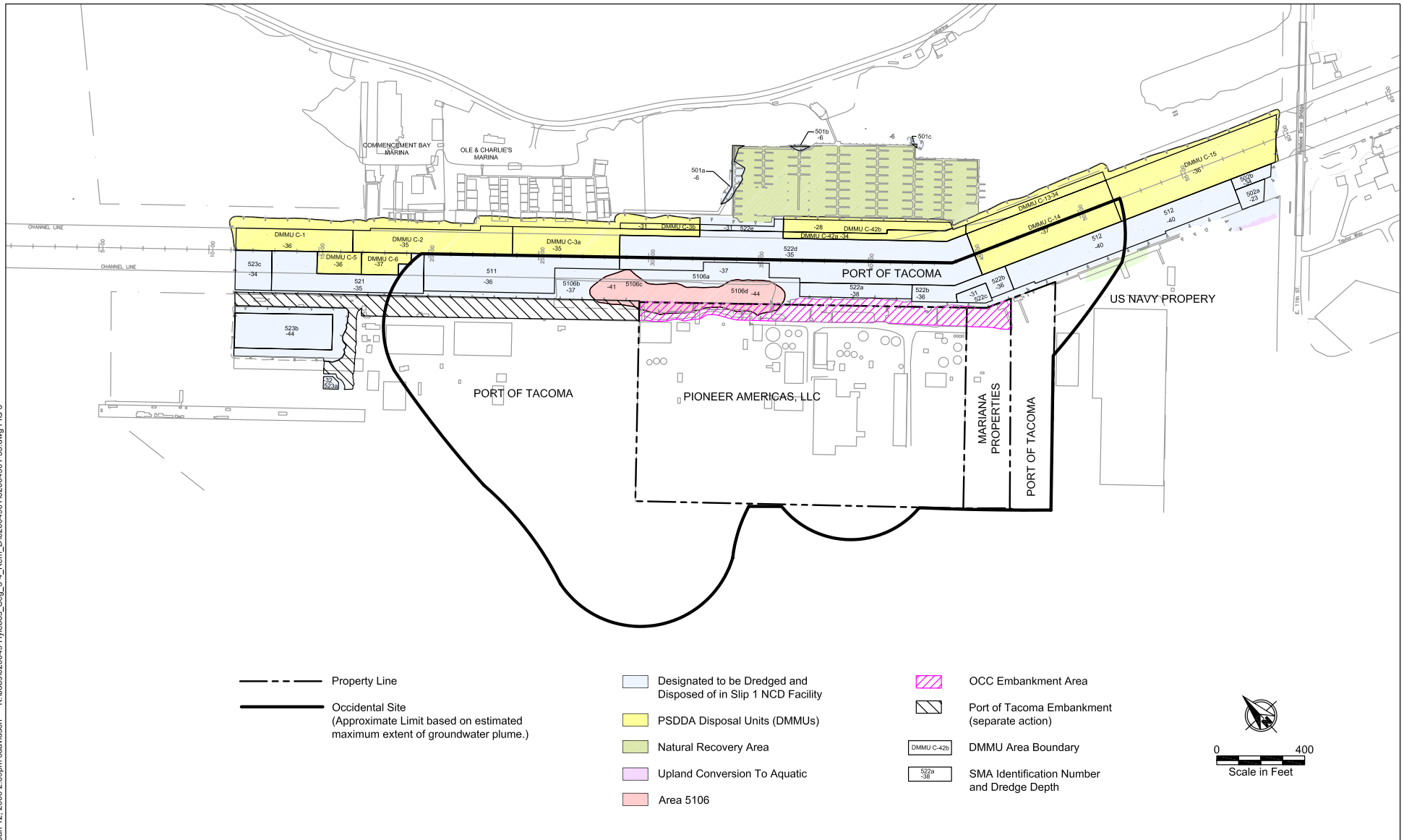
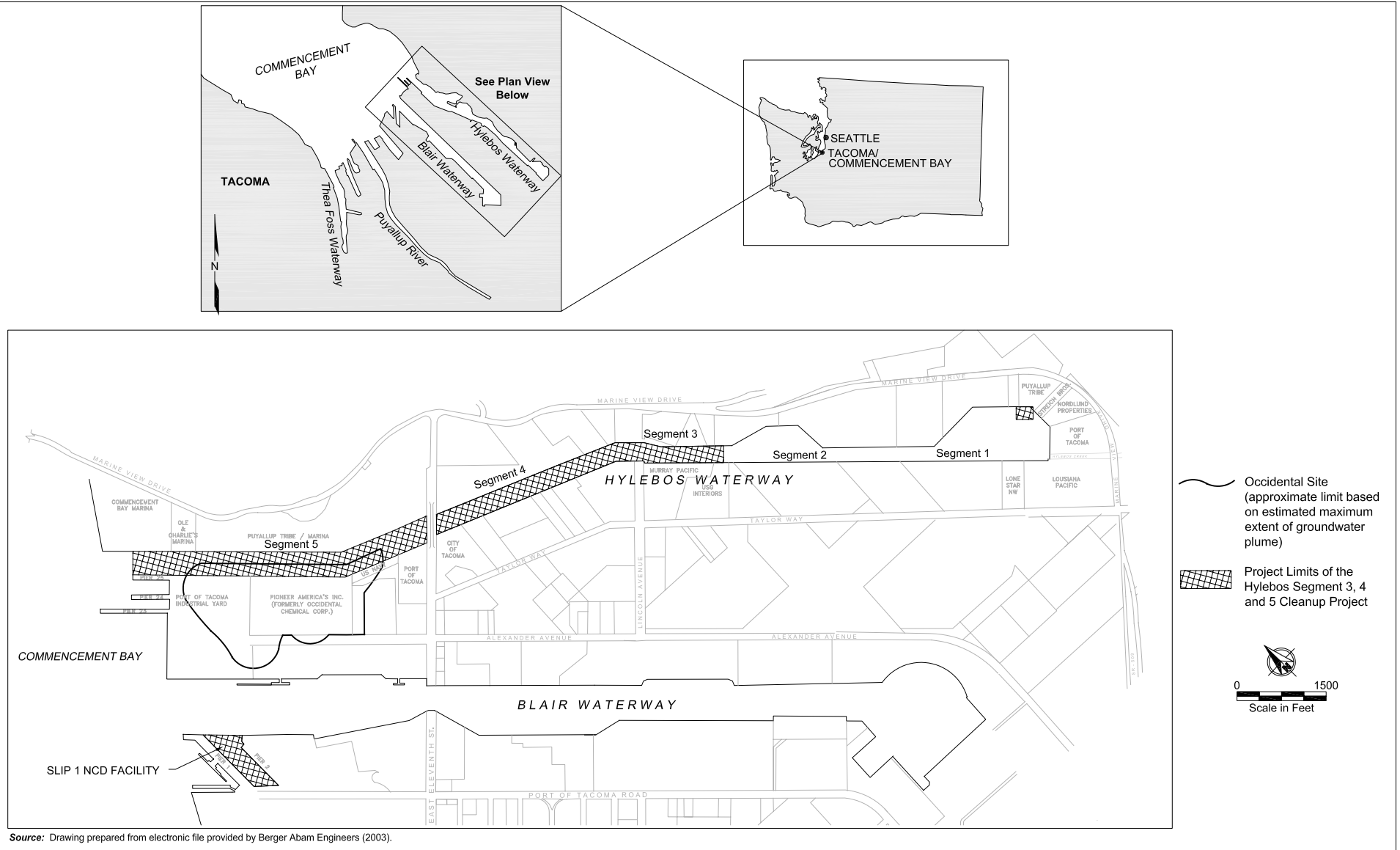
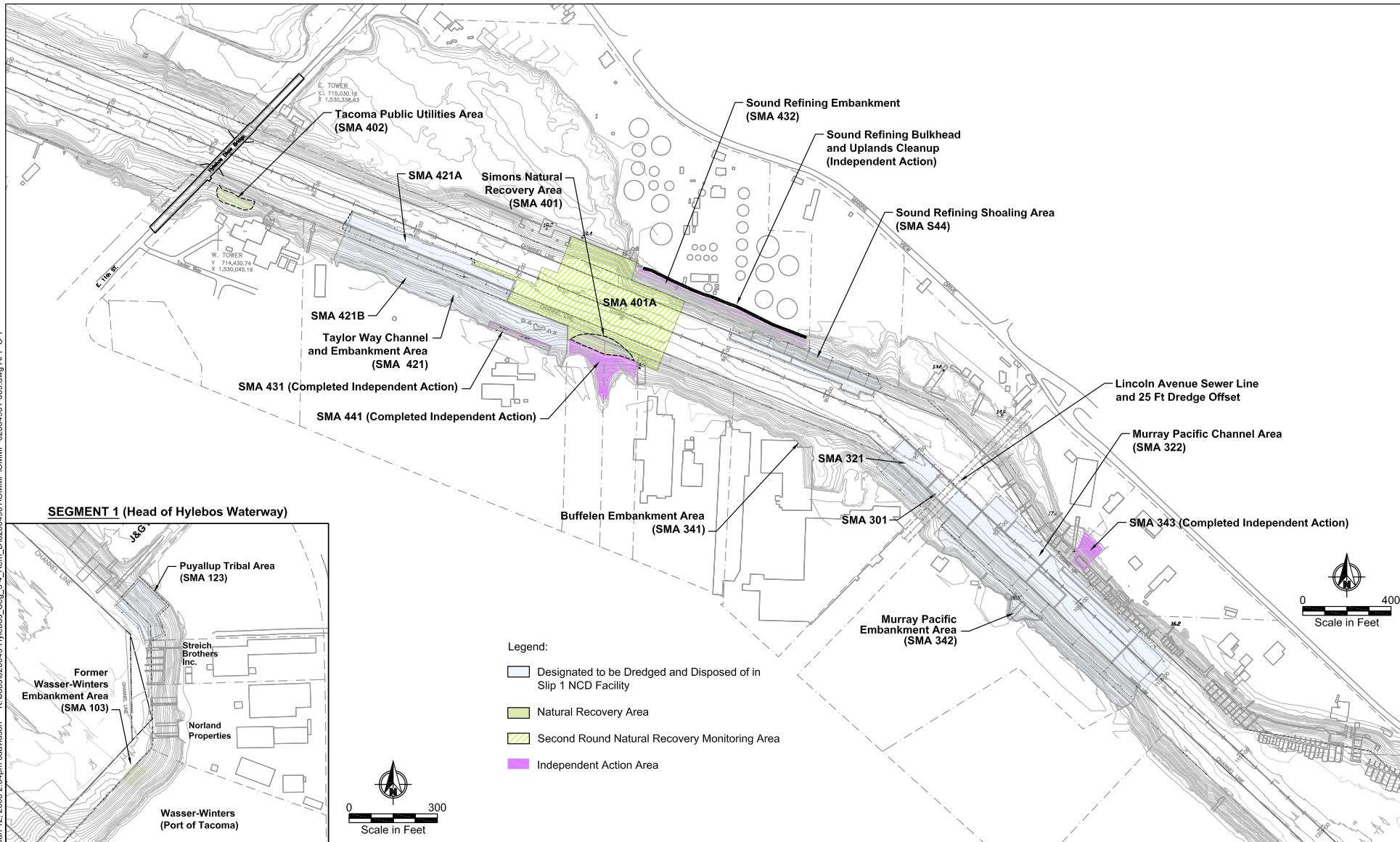


Figure 3
Remedial Action Areas
Mouth of Hylebos Waterway (Segment 5)

APPENDIX B



APPENDIX C-1



APPENDIX C-2

